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OCCUPATIONS IN THE CARE AND REHABILITATION OF THE MENTALLY RETARDED.

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TWENTY-SEVEN FULL TIME OCCUPATIONS INVOLVING DIAGNOSIS, CARE, AND REHABILITATION OF THE MENTALLY RETARDED ARE DISCUSSED. FOR EACH, AN OCCUPATIONAL DEFINITION, THE NEEDED QUALIFICATIONS, AND SOME INDICATION OF THE NECESSARY WORKER TRAIT REQUIREMENTS SUCH AS APTITUDES, INTERESTS, TEMPERAMENT, AND PHYSICAL DEMANDS AND WORKING CONDITIONS ARE DESCRIBED. THE BIBLIOGRAPHY CONTAINS 29 REFERENCES. THIS DOCUMENT IS ALSO AVAILABLE FROM THE SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20402. (CG)

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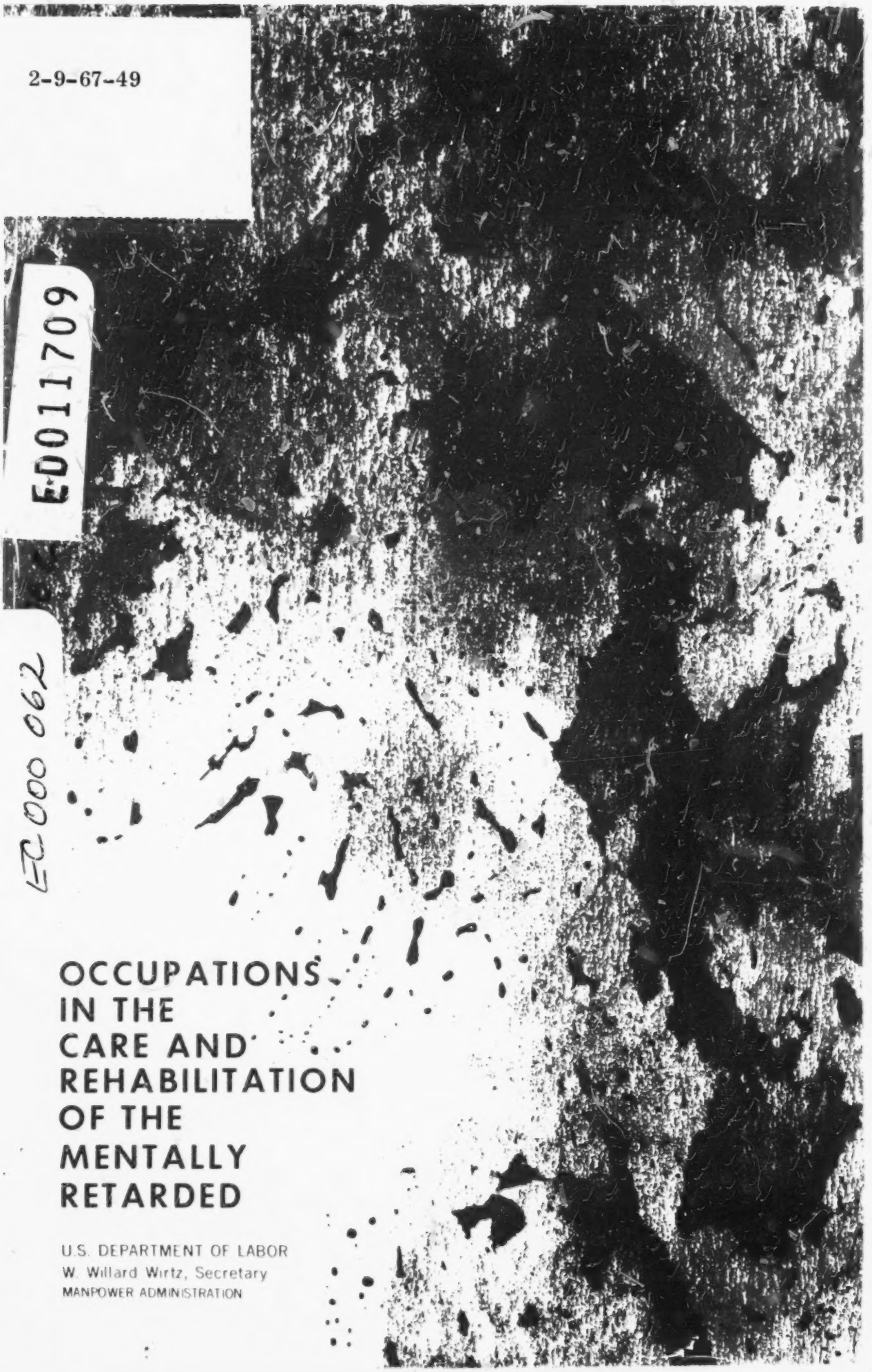

OCCUPATIONS IN THE CARE AND REHABILITATION OF THE MENTALLY RETARDED

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OCCUPATIONS IN THE CARE AND REHABILITATION OF THE MENTALLY RETARDED

SPECIAL NOTICE

The occupational descriptions contained in this volume have been compiled from a number of different sources and therefore describe the individual occupations in a generalized, composite form. Consequently, no description can be expected to coincide exactly with any specific occupation in a particular establishment or in a particular locality. To be of greatest use, the descriptions should be supplemented by local information concerning specific occupations in the community.

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FOREWORD

One of the most compelling and frustrating problems during the early stages of a new or rapidly expanding "crash program" is the inevitable manpower lag when personnel needs outstrip available human resources. During the late 1950's, Sputnik exposed our critical need for more trained teachers, engineers and scientists, and gifted administrators to meet the insatiable demands of a wholly new dimension in military and space technology. Today, we face a similar but no less severe shortage of qualified men and women to staff the emerging programs of a society increasingly committed to the health and welfare of all our people. In few areas is this need greater than in the field of mental retardation, one of the cruelest and most devastating afflictions of our time and, until recently, one of the most neglected.

President Johnson, as President Kennedy did before him, has served notice that mental retardation no longer can be swept under the rug. Much can and must be done to prevent its ravages and to rehabilitate those who are now retarded. The continuing need for dedicated, trained men and women to work with the retarded—and how effectively this need is met—may be the most important single factor in facing this challenge. It is with this in view that the United States Employment Service presents *Occupations in the Care and Rehabilitation of the Mentally Retarded*, in the belief that those who bring their talents to this vital effort and those charged with using those talents will benefit equally from the most accurate, current occupational information obtainable. In particular, it is hoped that local Employment Service counselors and interviewers, personnel officers, and others concerned with matching men and jobs will find this document especially useful.

It is not the intent of this document to discuss the retardate and his condition from a physiological standpoint. The following introductory information has been selected for presentation here because we believe all of it is helpful, and some of it necessary, in understanding the occupations concerned with the care and rehabilitation of the retardate and his specialized problems.

Frank H. Cassell
Director, U. S. Employment Service

Nurse, Staff, Public Health assisting a retarded youngster into his wheelchair.

INTRODUCTION:

Although its incidence does not rank with that of cancer, heart disease, and other more widespread health problems, mental retardation in many ways exacts a greater toll in human misery than those afflictions that most commonly occur in middle or later life and that may bring eventual death. Because it is typically present at birth or may strike shortly afterward, mental retardation robs its victim of full capacity for living, for meeting the needs of self and family, and for realizing the benefits of a society increasingly geared to intellectual achievement. Of our nearly six million mental retardates, fewer than 25 percent will receive the best care and rehabilitative services available today.* Many hundreds of thousands will be exposed to hit-or-miss training in inadequate facilities by overburdened personnel. Thousands more will spend the greater part of their lives in general-purpose mental institutions or will be cared for by relatives seldom able to develop fully their limited potential.

The reasons for this tragic situation are complex, ranging from public apathy and ignorance about retardation to inadequate financial support for rehabilitative services and personal care for the retarded. A major factor, however—and the one most relevant to this study—is the critical shortage of trained personnel able and willing to work with the retarded in schools, residential institutions, clinics, sheltered workshops, day-care centers, and in the community.

* Source: President's Committee on Mental Retardation, Washington, D. C.

MISCONCEPTIONS AND FACTS

Few health problems are surrounded by so much popular ignorance and misinformation as that of mental retardation. While few well-informed persons now believe the superstitions and old wives' tales commonly held in our grandparents' day, the erroneous impression still exists that mental retardation is a disease, similar to mental illness, and that little can be done to qualify the retardate for self-care and self-support.

Retardation has many causes and degrees of severity. It is not a disease, nor is it a form of mental illness. With proper training, most retardates are capable of leading reasonably productive lives, and rehabilitation experts estimate that better than eight out of ten could perform useful work if public and employer attitudes were more receptive to their employment. Retardates are seldom dangerous to others. They are no more prone to commit crimes or engage in immoral behavior than "normal" persons, and the majority do not have physical abnormalities that reveal their condition to others at a glance.

On the positive side, there are numerous jobs retardates can perform even better than "normal" persons, and in many other jobs they may more than compensate for their handicap with greater loyalty, dependability, and pride of achievement. While retardates do not necessarily like elemental, monotonous, or repetitive jobs any more than do other workers, there is evidence that they have a greater tolerance for such work and are at a real advantage when presented with tasks requiring definite, routinized responses to fairly explicit instructions. Successful placements of the retarded have been made in a wide variety of jobs, including those of office clerks, messengers, stock clerks, kitchen helpers, janitors, farm hands, gardeners, packers, assemblers, laundry sorters, service station attendants, warehousemen, and hospital aids.

In summary, with suitable training a substantial number of retardates, once assumed to be unemployable, can make a satisfactory job adjustment. If employers and fellow workers will accept the retardate as a handicapped person able to function successfully within the scope of his limitations; will realize the importance of giving him clear and explicit assignments; and will ignore minor lapses in social expertise, they will in most cases find in him a valued and productive human asset.

CAUSES AND "CURES"

Strictly speaking, there is no one cause of mental retardation, nor is there a "cure" in the clinical sense. Because retardation involves the injury or incomplete development of the brain, the condition is at present irreversible and its victim can never be completely free from impairment. A possible exception is the child from an unsatisfactory environment, who exhibits symptoms of retardation because of emotional damage, lack of intellectual stimulation, or other fruits of rejection, abuse, or neglect. Such children are not retarded in the pathological sense; yet they seldom develop the capacities and adaptability of other youngsters without professional help, which is often the same kind of training given the genuine retardate.

More than 200 known diseases and conditions can cause retardation. Certain drugs and toxicants administered during pregnancy could also be responsible, as could exposure to radiation, even tiny amounts, during this critical period. A substantial number of prenatal retardation cases, however, are apparently of hereditary origin and prevention is impossible at present. Postnatal causes include birth and childhood injuries, accidental poisoning, brain tumors, oxygen deprivation, endocrine or metabolic imbalances in the infant, infections and childhood diseases, and a variety of unexplained factors that may cause subsequent retardation in an apparently normal baby.

Some of these risks can be minimized by following sound obstetric advice and by exercising special care during pregnancy. Others can be avoided during childhood by keeping poisons and drugs away from children, by administering early tests and special diets to children suffering from suspected endocrine or metabolic disorders, and by scheduling regular checkups for infants and young children to detect potential or actual retardation in time to combat it most effectively. The importance of adequate, early prenatal care and frequent recourse to pediatric or other competent medical advice throughout childhood cannot be overemphasized.

As mentioned earlier, symptoms of mental retardation often result from childhood deprivation and emotional injury. According to experts, parents who fail to provide an atmosphere of security and intellectual stimulation from an early age risk impairing their child's functional capacity for learning by as much as 30 IQ points. Of children diagnosed as mentally retarded, a disproportionately high percentage come from backgrounds of parental indifference and neglect, often compounded by economic and emotional insecurity, physical abuse, poor physical health, and faulty nutrition.

Not only is retardation frequently associated with such an environment, but emotional and mental illness as well. Although mental illness is quite different from mental retardation, it is not uncommon for victims of such an illness to exhibit characteristics which are often mistaken for retardation, particularly in children. It is, of course, possible for an individual to be both retarded and mentally or emotionally disturbed—either as a result of frustrations and inferiority feelings growing out of his handicap, or as a result of other influences.

MULTIPLE HANDICAPS IN THE RETARDED

For a variety of reasons, retardates are more likely to suffer several handicaps than non-retardates, both in physical and mental terms. Because of genetic abnormalities, many retarded children are born with defects of both mind and body, such as cleft palate, the absence of one or more limbs, or congenital blindness or deafness. Second, retardates often lack the ability to protect themselves from injury and frequently neglect or cannot observe basic health and hygiene practices that help prevent illness. Third, they frequently suffer physical effects from the condition causing retardation, such as jaundice often associated with rh-

blood-factor incompatibility. Finally, the deprived background of many retardates, coupled with consequent emotional damage, tends to rob them of their bank balance of general physical health and emotional well-being that most of us take for granted.

Because of the large number of multiple-handicapped retardates, the task of those serving their needs can be an unusually difficult one. For this reason, it is futile to focus attention on the problem of retardation except within the context of the total medical, cusodial, social service, and rehabilitative resources of the home, school or other institution, and community.

DIAGNOSING RETARDATION

The mental picture many of us have of the retarded is neither flattering nor accurate—often growing out of limited contact with a severely retarded youngster, perhaps with Mongoloid characteristics or other visual evidence of his condition. The fact is that the overwhelming majority of retarded persons have borderline, mild, or moderate handicaps with few obvious physical manifestations. Many retardates are so slightly affected that they are able to function adequately in society without being considered retarded at all. Chances are many of us know individuals who seem "a little slow," but we would not ordinarily think of them as being mentally retarded. Such persons, particularly if they are strongly motivated or socially sophisticated, may appear of average mentality and may even excel in studies requiring rote learning or in jobs where intelligence and imagination are of limited importance.

While authorities question the use of an arbitrary IQ score as sole evidence of retardation, or of the degree of retardation, there is fairly general agreement that persons with IQ scores of 75-80 and below should be considered either mentally retarded of at least in need of specialized training to develop their maximum potential.

Although intelligence itself rarely changes significantly throughout the lifetime of an individual, IQ test scores can be influenced markedly by factors entirely unrelated to intelligence. Aside from an unsatisfactory environment, mentioned previously, such conditions as visual or hearing impairment, lack of motivation, fear of failure, poor reading skills, problems of group adjustment, and hostility toward the school or teacher can strongly influence both IQ test scores and classroom achievement. For this reason, it is essential that a child suspected of retardation be given a thorough medical, psychological, and perhaps a psychiatric examination before any decisions are made affecting his future. In general, the earlier this is done the better.

Unfortunately, many retardates are not so diagnosed until the early years of school, long after they may have suffered serious emotional damage from continual failure and frustration. Then, too, precious years have been lost during which they could have benefited from treatment or specialized training geared to their limitations and needs. In certain endocrine and metabolic disorders, moreover, diagnosis shortly after birth could have prevented subsequent retardation through control of diet.

CLASSIFYING THE RETARDED

LEVEL	INTELLIGENCE QUOTIENT
Trainable	About 20-50
Educable	About 50-75

LEVEL	Pre-School Age 0-5 Maturation & Development	School Age 6-21 Training & Education	Adult 21 & Over Social & Vocational Adequacy
PROFOUND IQ 20 or less	Gross retardation: minimal capacity for functioning in sensori-motor areas; needs nursing care.	Obvious delays in all areas of development; shows basic emotional responses; may respond to skillful training in use of legs, hands, and jaws; needs close supervision.	May walk, need nursing care, have primitive speech; usually benefits from regular physical activity; incapable of self maintenance.
SEVERE IQ 20-35	Marked delay in motor development; little or no communication skill; may respond to training in elementary self-help, e.g. self-feeding.	Usually walks barring specific disability; has some understanding of speech and some response; can profit from systematic habit training.	Can conform to daily routines and repetitive activities; needs continuing direction and supervision in protective environment.
MODERATE IQ 36-51	Noticeable delays in motor development, especially in speech; responds to training in various self-help activities.	Can learn simple communication, elementary health and safety habits, and simple manual skills; does not progress in functional reading or arithmetic.	Can perform simple tasks under sheltered conditions; participates in simple recreation; travels alone in familiar places; usually incapable of self maintenance.
MILD IQ 52-67	Often not noticed as retarded by casual observer, but is slower to walk, feed self and talk than most children.	Can acquire practical skills and useful reading and arithmetic to a 3rd to 6th grade level with special education. Can be guided toward social conformity.	Can usually achieve social and vocational skills adequate to self maintenance, may need occasional guidance and support when under unusual social or economic stress.

Reprinted from *Mental Retardation, A National Plan for a National Program*—President's Panel on Mental Retardation, U.S. Department of Health, Education and Welfare, U.S. Government Printing Office, 1963. pp.14,15

Determining the presence and degree of retardation is a complex and by no means infallible competence, often requiring the services of a pediatrician, neurologist, psychologist, psychometrist, psychiatrist, social worker, public-health nurse, and perhaps a child-development specialist. In no case should the teacher or parent alone make a "horseback diagnosis" that could leave permanent psychological scars on the child as well as rob him of treatment or training that alone could release his full potential. The parent or relative who rationalizes away a child's condition, or who blames the teacher, the school, or some other influence carries a heavy responsibility for undermining the youngster's immediate and long-term welfare.

REHABILITATION APPROACHES

While there are at least four recognized levels or degrees of mental retardation, plus that of the borderline retardate who may or may not be retarded enough to have clinical significance, this study is concerned only with three basic groups—the educable retardate, the trainable, and those who rarely benefit from rehabilitative services.

Although the groups overlap to an extent, an educable retardate is considered to have an IQ range of about 50-75; a trainable, from 20-50; while a profoundly retarded person having an IQ much below 20 is usually considered incapable of profiting from any but the most elemental training.

The mildly retarded may progress through the elementary grades either in a conventional school progarm or in special education classes for the retarded. Their progress is likely to be greater and more rapid, of course, in a program tailored to their needs and limitations. Such a program for the mildly and moderately (educable) retarded emphasizes basic academic subjects during the elementary school years, such as reading, writing, and simple arithmetic, together with such practical training as instruction in socially approved behavior, telling time, answering the telephone, bathing and dressing, and getting along with others. Later, educable retardates may progress to elementary science, certain language arts, vocational arts, home economics, and specific preemployment or on-the-job training, as well as to specialized instruction in finding a job, budgeting, and meeting related demands of adult society.

The moderately retarded are less likely to benefit from formal academic training. A program geared to their needs would emphasize self-help skills, such as eating, bathing, rote memorization of such facts as name and address, simple oral communication, and the development of motor coordination, manual dexterity, and accepted social habits.

The severely retarded, with an IQ range of around 35 or less, are even less responsive to a rigid, formalized instructional program. While some self-help skills may be developed in members of this group by means of patient, individual efforts, these victims usually require round-the-clock care throughout life. Although comprising a relatively small fraction of the retarded, they require the most intensive and long-term

care, and, as such, absorb a disproportionate share of funds and manpower. Unfortunately, this is also the group most commonly identified in the public mind with mental retardation, giving the layman a distorted view of the more typical retardate's capability for self-care and self-support.

INSTITUTIONAL AND COMMUNITY SERVICES FOR THE RETARDED

Contrary to popular belief, most retardates do not require institutionalization, although many benefit from such care to a greater extent than from a community-centered special education or day-care program. Retarded children and even adults have the same need for affection, understanding, and personal identification as "normal" persons. Wrenching a retarded child from his family and community may in many cases adversely affect his progress and adjustment by compounding existing emotional problems and breaking his link, however tenuous, with the outside world. It cannot be denied, however, that in cases of profound retardation, certain multiple handicaps, or where adequate community facilities are lacking, a residential institution may be the only satisfactory solution. Institutionalization may also be indicated where a child's home environment is unsatisfactory. For example, where the child is under pressure to develop or where there is neglect or hostility on the part of parents or other children.

When institutional care appears necessary, parents or welfare agencies are faced with the choice of private or public facilities, special or general-purpose, and distant or nearby ones. For those called upon to make this decision, it is an agonizing one with few obvious choices. Yet it may well be the most critical single decision influencing the personal adjustment of the child, his lifetime happiness, and his capability for self-care and self-support.

Only in recent years have community resources begun to meet the challenge of retardation at the local level. There are still thousands of small and medium-size communities and rural areas where no facilities or programs of any kind are available for the retarded.

Where services do exist, moreover, they may be inadequate because of heavy case loads and shortages of funds and trained personnel—reflecting the traditional orientation of public health and welfare activities to the minimum needs of the very poor. But mental retardation cuts across all economic levels and a retarded youngster can be just as much a tragedy and financial burden to a relatively affluent family as to a deprived one.

Ideally, local resources may include a diagnostic clinic, one or more day-care centers maintained by nonprofit organizations, special education classes in public schools, community recreation programs, foster-home care, a sheltered workshop either for the retarded or for all handicapped victims, public welfare and counseling services, public and private medical and mental health services, and possibly an institutional-care center operated under public or private auspices.

Local or regional diagnostic services may be quite satisfactory, particularly in communities maintaining well-baby and outpatient psychiatric clinics. However, diagnosis is only the first step in a meaningful program for combating retardation, and a competent diagnosis is of little value without correspondingly good custodial or rehabilitative services to back it up.

THE RETARDED ADULT

The focus of this narrative has been on the care of the mentally retarded child or adolescent. This is as it should be, for it is during the early years that the greatest progress can be made in developing the retardate's potential, as well as in minimizing any physical handicaps and emotional disturbances that may accompany his disability.

Obviously, however, most retarded children eventually will become retarded adults. If they are self-supporting, they may cease to be a "problem" within the scope of existing programs or services for the unemployable or profoundly retarded adult. But like many handicapped persons, they may enjoy less job security than other workers and their income is likely to be below average.

The mentally retarded woman may marry but she may have difficulty meeting the responsibilities of marriage, parenthood, and of living itself—even though her economic needs may be met by her husband.

Where the adult retardate is unemployable because of lack of training or ability—or lack of acceptance by employers—a more difficult problem exists. Many of these unemployables require lifetime care by parents, relatives, or in institutions. Others have adjustment problems so serious that they may be emotionally disturbed or mentally ill as well as retarded. Still others are driven to antisocial behavior, occasionally with criminal overtones. In many respects, the adult unemployable retardate presents a greater need—and a greater challenge—than any other handicapped group in our society.

RECENT PROGRESS

Although much still needs to be done, there is encouraging evidence that real progress is at last being made in the battle against retardation. The late President Kennedy was vitally concerned with this problem, and is credited with the present stepped-up campaign by the Federal government to combat retardation through expanded research, construction grants, and other programs designed to meet both local and national needs. The report of President Kennedy's Panel on Mental Retardation, released in October 1962, called for a variety of other imaginative steps —many of which are now being taken—to help prevent or control retardation pending a dramatic research breakthrough.

Recent legislation, together with substantial appropriations increases for existing program activities, has greatly strengthened the Federal government's commitment to the campaign against retardation. Symbolic of this increased emphasis is the more than $295 million earmarked in

President Johnson's budget for retardation programs of the Department of Health, Education, and Welfare for fiscal year 1966—more than eighteen times the figure allocated in the 1956 budget. More than half this sum will be used to finance income maintenance payments to retardates, while the remainder will support various research programs and studies, demonstration projects, training and facilities-construction grants, planning, and administrative services.

At the State, regional, and local levels, activities by public and private agencies have been stepped up significantly in the past few years. In many communities, charitable, civic, and parents' groups have been instrumental in setting up day-care centers, sheltered workshops, and "halfway houses" to help meet the needs of the retarded. PTA mothers and civic leaders have been partly responsible for a major overhaul of existing special education programs in the school systems of many communities and for the establishment of programs where none existed. The number of volunteer workers who give their services to the retarded has grown substantially, and there is evidence that parents of retarded children are assuming more and more community leadership in these activities.

As increased attention is focused on retardation, and as more resources become available to combat it, the hope grows that some combination of "answers" can be found to relegate this cruel affliction to the limbo of smallpox or diphtheria. But tightened professional standards, improved facilities, and the fulfillment of other critical needs will not alone prevent or "cure" retardation although they may measureably brighten the lives of those now retarded, their families, and others personally concerned with this group.

NEW "ANSWERS"

Even before the first residential-care center for the mentally retarded was established in 1848—rather straightforwardly known as the Massachusetts School for the Feebleminded—there was hope for a more lasting and effective solution to retardation. Yet despite the progress medical science has made in other areas during the last century, relatively little encouragement has been given to those hoping for a means of preventing retardation and still less for a "cure."

There are many reasons for this other than the physiological character of the condition itself. Lack of funds for basic research in retardation and a negative attitude on the part of many scientists, who have been conditioned to think of retardation as "incurable," are perhaps the most important.

While retardation is "incurable" so far as present-day medical knowledge is concerned, the same could be said for tuberculosis, rabies, and malaria in an earlier era. Mental retardation may, indeed, be more difficult to cure—or to prevent—than, say, leukemia or polio. As its causes may number in the hundreds, there may be no single curative or preventive agent that will "work" in all cases. Furthermore, any new drug or

surgical remedy may have to be backstopped by similar breakthroughs in the behavioral and social sciences, in teaching, in speech pathology, and in genetics.

We know relatively little about the total learning process, particularly in the brain-damaged, the culturally deprived, and the emotionally disturbed. Until our knowledge grows in such areas as the nature of human motivation and behavior, perception, personality, language development and communication, and social adaptation, we will continue at a marked disadvantage in all our approaches to retardation.

In addition to the need for greater research in the social and health sciences, many authorities are calling for changes in our laws and public policies affecting the retarded. For example, it has frequently been suggested that the financial burden of a retarded child be shifted from the parent to the State, or at least that it be distributed more equitably through some form of insurance. It also has been suggested that the community offer routine genetic counseling to engaged or married couples having a familial history of retardation or other conditions that increase the risk of bearing a retarded child.

Whatever the possible approaches, mental retardation is such a complex problem that any long-range solution may be equally complex, perhaps involving a combination of social, political, medical, and economic measures never before applied to a national health problem. But there is real hope—perhaps for the first time—that mental retardation can eventually be conquered. In this context, it is the sincere hope of all who have contributed to this brochure that many of the occupations described in the following pages will one day be obsolete.

SCOPE AND ARRANGEMENT OF PUBLICATION

One of the most difficult decisions in preparing this document has been the selection of occupations to be included. Unlike other career fields, many occupations in the care and rehabilitation of the mentally retarded have no one common denominator—other than some involvement with the retarded. For example, every employe of a residential institution serving the retarded—from plumbers and kitchen workers to bus drivers and billing clerks—is obviously concerned in some way with the care and rehabilitation of the retarded. Yet most of these occupations—and such others as visiting homemakers, practical nurses, nurse aids, recreation leaders, dietitians, and the like—are not explicitly identified with the retarded in a formal sense and generally require little or no specialized knowledge of or experience with their problems.

Certain other occupations, such as neurologists, psychometrists, electroencephalograph technicians, geneticists, psychiatric and registered nurses, psychiatric aids, dentists, prosthetists, and orthotists may often enjoy a more fundamental relationship to the retarded. Yet any attempt to reflect this in a job description would distort the occupation as typically practiced.

A third group of occupations has also been excluded—most of the hundreds of administrative, consultative, and voluntary service specializations found in large residential institutions, in public health and welfare programs, and in nonprofit organizations serving the retarded. This has been done for two reasons. First, the number and kind of administrators,

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consultants, volunteer workers, and other supporting personnel differ widely with the size and character of institution, community, or other employing facility; and second, the essential activities performed and job knowledge required are adequately reflected in one or more of the included occupations.

Two criteria have been used for including occupations: (1) Does the occupation require specialized training and/or experience in retardation problems? (2) Does the occupation typically exist as a full-time specialty involving substantial contact with retardation problems or with retardates?

Even in the above context, there must be misgivings. For example, the speech clinician is included because he is found in many well-conceived special education programs and in many institutions for the retarded. Yet only a small percentage of trained specialists in this field are actively identified with the retarded, and a job description oriented solely to the speech pathology of the retarded would be of little value or applicability. In like manner, the director of special education in a large community or statewide school system would normally be concerned with retardation activities as only part of a total program that also embraces the needs of the blind, deaf, homebound, emotionally disturbed, or otherwise exceptional child. The pediatrician, too, may often be concerned with retardation as only one of many health problems to which he is professionally or administratively exposed during a given day.

For these reasons, the 27 occupations described on the following pages may not give a complete picture of the field to those who view it in the broadest—or narrowest—terms. To such persons, it is suggested that supplemental occupational information resources exist in the many other publications of the U. S. Employment Service, especially the revised *Health Careers Guidebook* and the *Dictionary of Occupational Titles, Third Edition*, both published in 1965; and in the current *Occupational Outlook Handbook* published by the Bureau of Labor Statistics, U. S. Department of Labor.

EMPLOYMENT VARIABLES AND QUALIFICATIONS

Occupations in the care and rehabilitation of the mentally retarded are found in many different job environments. Perhaps the most obvious source of employment is the residential-care center, either a general-purpose mental institution or one intended specifically for the retarded. Similar occupations exist in local day-care centers, in public and private schools, in sheltered workshops, in public health, recreation, and welfare programs, and in a variety of other facilities and services.

In describing the occupations which follow, every effort has been made to reflect the broad character of the job and its applicability to many different job environments. A social worker, for example, may approach his assignment from a slightly different viewpoint when employed in a residential-care facility, as contrasted with a community welfare agency. In essence, however, the job is so similar in both situations that no purpose would be served by magnifying the slight differences involved or by implying that the training and experience required is significantly different. Where basic differences have been found to exist between similar jobs, as between the cottage parent and the child-care attendant, for example, separate descriptions have been prepared. However, this does not mean that in particular situations effective workers in one job could not be equally successful in the other.

It was emphasized to us again and again by knowledegable persons in the retardation field that for many occupations the most important

quality required is a genuine desire to work with the retarded and the capacity to respond to and have empathy with their problems. For this reason, a dedicated worker with a high school education may be more effective in many jobs than a graduate student working with the retarded simply because he feels the experience may benefit him professionally.

The qualifications listed in each job description for each occupation represent the most current, reliable information available. In some cases, these qualifications reflect State certification standards, merit-system requirements, or other widely accepted criteria. In other cases, no such formalized standards exist and wide latitude is usually extended in selecting and promoting candidates for a given vacancy. In most circumstances, these qualifications alone should influence staffing decisions only to the extent that they serve the needs of a realistic personnel policy.

The jobs selected should not be regarded as constituting a staffing pattern for any specific facility or program serving the mentally retarded. Because of wide variations in the size and character of facilities and because frequently there is a lack of standardization even among installations of the same kind and size, no typical staffing pattern could be prepared. Furthermore, the variety of occupations found throughout the field of retardation services do not lend themselves to such presentation because they are not all found in the same work environment and any attempt to categorize them in this way would serve no useful purpose.

As previously mentioned, the institution or other facility may also draw on the services of numerous consultants, volunteer workers, and others whose occupations do not fall within the scope of this brochure. In staffing such facilities, therefore, personnel officers may require additional specialized data for making long-range plans or day-to-day decisions. Because these decisions will reflect, for the most part, local needs and personnel resources, it is suggested that the nearest local office of the State Employment Service be contacted for assistance in defining and filling specific manpower needs.

ARRANGEMENT AND CONTENT OF OCCUPATIONAL DESCRIPTIONS

The job descriptions are arranged in alphabetical order by title. The wording of the title appearing at the head of each description reflects common usage throughout the country. Other titles, or alternate titles, by which the job is known also appear at the head of each description in small type. Following the alternate titles appears the code or code grouping which identifies the job within the present classification structure of the third edition of the *Dictionary of Occupational Titles*, published in 1965. Immediately following this code appears, in parentheses, a second code number. This is the code or code grouping which identifies the job within the classification structure of the second edition of the Dictionary published in 1949. The second edition code is presented here only for the convenience of second edition users.

OCCUPATIONAL DEFINITION—This provides a brief description of the duties of a particular occupation. It provides an understanding of the tasks performed and the skills and knowledge necessary for the performance of those tasks.

EDUCATION, TRAINING, AND EXPERIENCE—This section provides an indication of the amount of education and the level of training and experience usually required for employment in the occupation. As previously mentioned, the various occupations and qualifications are not always standardized and considerable variation exists among employers as to required education, training, and experience. However, an attempt was made to indicate the range of such hiring requirements.

WORKER TRAITS—This section provides some estimate of the worker trait requirements of the occupation. It has long been believed that the ability of an individual to adjust to a specific type of work situation is as significant as the education and training qualifications he brings to the occupation. Consequently, judgments have been in terms of a number of components consisting of aptitudes, interests, temperaments, physical activities, and environmental conditions to which individual workers have to adjust. A listing and definition of each factor for the various components is contained in the Worker Traits section, pages 66 through 70.

Aptitudes—These are the specific capacities or abilities required of an individual in order to learn or perform some task. This component, made up of 11 specific aptitude factors, includes the nine aptitude factors contained in the General Aptitude Test Battery developed by the United States Employment Service and two additional ones not measured by the GATB. Those aptitudes were selected which seemed significant in the occupation and are identified in terms of specific work situations. The factor of intelligence, however, was not rated because of the difficulty in writing meaningful descriptive statements for this relationship.

Interests—This component is defined as a preference for a particular type of work experience. It consists of five pairs of bipolar factors, arranged so that a preference for one factor in a pair generally indicates a lack of interest in the other factor in the pair. Those factors were selected which seemed to be significant to the job in question, and were identified in terms of specific situations.

Temperments —The temperament component consist of 12 factors that reflect different work situations. Each work situation describes a type of activity that demands a different adjustment on the part of individual workers. Those temperament factors were selected that appeared significant in the occupation, and are identified in terms of specific duties.

Physical Demands and Working Conditions—These reflect working conditions which make specific demands upon a worker's physical capacities. There are six physical activities factors and seven environmental conditions factors. Those factors were selected that were significant in the occupation in the sense that they met established criteria for successful performance.

OCCUPATIONAL DESCRIPTIONS

Child-Care Attendant leading children in arm and finger exercises designed to develop their motor coordination and self-help skills.

CHILD-CARE ATTENDANT

359.878
(2-42.40)

attendant, children's institution; special-school counselor

OCCUPATIONAL DEFINITION

Serves the needs of mentally retarded children in their daily activities in day-care centers or other institutions: Maintains discipline to prevent children from harming themselves or others through carelessness or inattentiveness when alighting from or boarding buses or other conveyances, when at play, or when in the training situation. Helps children to remove

and don garments and hang or put them away. Trains children grouped according to social, physical, or chronological development in such subjects as personal hygiene and good grooming, desirable eating habits, and basic etiquette, and leads them in games and other recreational activities to prevent deformities and other health problems, and to stimulate gross motor development. Periodically attends staff meetings to acquire information about the history, special problems, and recommended program of training for each child. Observes behavior pattern of each child, exchanging information about unusual behavior with other staff members for use in diagnosis and planning rehabilitation. When performing these duties in classroom to assist TEACHER, SPECIAL EDUCATION in developing or improving students' self-sufficiency, may be designated TEACHER AID.

222-783 O - 66 - 4

EDUCATION, TRAINING, AND EXPERIENCE

High school graduate (or equivalent) preferred. On-the-job training provided by employer. Most positions require some experience in supervising day-to-day activities of groups of children. Some employers require that this experience be with the mentally retarded.

WORKER TRAITS

Aptitudes

Verbal ability required to communicate effectively on two levels—with children whose comprehension is low and for whom words must be carefully chosen to ensure maximum understanding—and with staff members in technical terms whose meanings are not always readily apparent.

Interests

A preference for activities concerned with people and the communication of ideas to relate to children and communicate with staff.

A preference for working with people for their presumed good as in the social welfare sense, or for dealing with people and language in social situations, necessary in working with the handicapped.

Child-Development Specialist leading a "juice-and-crackers break" to evaluate and develop socialization skills in retarded youngsters.

Temperaments

Ability to respond to varied conditions and job demands according to situation.

Ability to perform in situations involving the direction, control, and planning of an entire activity or the activities of retardates.

Ability to deal with retardates and staff in actual job duties beyond giving and receiving instructions.

Ability to interpret behavior of children in terms of judgmental criteria, such as experience with other children having similar handicaps.

Physical Demands and Working Conditions

Work is light to heavy, depending on age and self-sufficiency of children.

Environment noisy from voices and activities of children.

Field of vision must be wide to observe behavior in distant corners of room simultaneously.

Work is performed both indoors and outdoors.

CHILD-DEVELOPMENT SPECIALIST

195.108

(0-27.20)

OCCUPATIONAL DEFINITION

Evaluates social, emotional, mental, and physical development of suspected mentally retarded children to facilitate diagnosis, recommend appropriate rehabilitative or custodial placement, and improve adjustment of child in home environment: Visits child's home to interview parents, observe child's relationship with members of family, and evaluate his adjustment and maturity under normal conditions. Engages in play situations with child, in clinic setting, to interpret his responses in terms of accepted norms and determine his level of mental and physical development compared with normal children of corresponding age. Observes child's behavior, alone and in relation to others, to evaluate his attitude, social adjustment, emotional maturity and stability, and other indices of his developmental progress. Confers with other members of diagnostic team to exchange opinions relating to child's condition and rehabilitative potential. Prepares preliminary report of findings, including assessment of presence and severity of child's handicap and recommendations for custodial or rehabilitative placement, to facilitate final diagnosis. Counsels parents in providing adequate home or institutional care for child and in resolving other problems relating to his welfare. Cooperates with representatives of other health and welfare agencies, school officials, and others to facilitate placement of retardates and multi-problem cases. May conduct group sessions with parents and individual or group play sessions with children as part of follow-up program after diagnosis.

EDUCATION, TRAINING, AND EXPERIENCE

Little uniformity exists nationally, as this specialization is relatively new and opportunities may not exist in many communities. The essential need is for an individual trained in the social, emotional, intellectual, and physical maturation of normal children of various ages. Frequently, graduate elementary or nursery school teachers are selected for this position, usually with many years' experience and often with a master's degree in Elementary Education, Special Education, or related subject area. In many communities and rural areas, these responsibilities are assumed informally by other members of the diagnostic team.

WORKER TRAITS

Aptitudes

Verbal ability to work with children, parents, and professional members of rehabilitation team on various levels of comprehension and verbal sophistication, and to read and prepare case reports.

Motor coordination, manual dexterity, and finger dexterity to play with children and to demonstrate use of toys, games, and similar work aids.

Interests

A preference for activities involving working with people for their presumed good, necessary in serving the handicapped.

A preference for activities involving people and the communication of ideas to deal with retardates and parents, to evaluate maturity of retarded children, and to form conclusions about children's rehabilitative potential for presentation to other members of staff.

Temperaments

Ability to respond in situations characterized by variety and change, necessary in facing responsibilities and situations calling for differing approaches.

Ability to deal with people in actual job situations beyond giving and receiving instructions, necessary in working with retardates, parents, and clinic staff.

Ability to form conclusions reflecting diagnosis and estimate of rehabilitative potential of retarded children on basis of sensory or judgmental criteria.

Physical Demands and Working Conditions

Work is light to medium, depending on nature of play activity. When visiting homes, incumbent may have to climb steps and walk or drive.

Stooping, kneeling, reaching, and handling may be involved in play activities.

Talking and hearing to communicate with children, parents, and other members of diagnostic staff.

Clinic setting may be quite noisy when many children are present.

Work is performed inside.

COTTAGE PARENT

355.878
(2-42.45)
cottage attendant; house parent

OCCUPATIONAL DEFINITION

Cares for mentally retarded children in dormitories or cottages, acting as foster parent to provide guidance, care, training, and understanding in children's daily activities: Dresses and undresses children or oversees their dressing and undressing. Attends to personal hygiene and grooming of children unable to care for themselves and ensures that other children perform such functions as bathing, brushing teeth, toileting, and combing hair. Performs residence housekeeping tasks such as sweeping, mopping, making beds, dusting, and folding laundry. Serves food to children in cottage from portable steamtable or accompanies children to dining hall. Accompanies children to daily activities, to clinic, on nature walks, or on similar excursions. Maintains schedule of each child's daily activities and ensures that child attends activity on time and is appropriately dressed. Entertains children and keeps them as happy and comfortable as possible. Advises children with routine personal or social problems. Prepares requests for materials and supplies needed and for necessary repair and maintenance services. Prepares reports on children's behavior and other significant conditions or activities occurring in cottage or dormitory area.

EDUCATION, TRAINING, AND EXPERIENCE

Completion of eighth grade. On-the-job training usually provided. Most positions require some experience in working with handicapped children.

WORKER TRAITS

Aptitudes

Verbal ability to communicate effectively with children whose vocabularies are limited.

Clerical perception to complete activity reports.

Interests

A preference for situations involving activities concerned with people and ideas to communicate with retarded children at their level of comprehension.

A preference for situations involving work with people for their presumed good as in the social welfare sense, necessary in caring for the handicapped.

Temperaments

Ability to respond to varied conditions and job demands according to situation.

Ability to perform in situations involving responsibility for the direction, control, and planning of the daily activities of retarded children.

Ability to deal with people in actual job situations beyond giving and receiving instructions, necessary in meeting the continuing daily needs of the retarded.

Ability to form conclusions concerning children's condition or needs on basis of judgmental evaluations of appearance and behavior.

Physical Demands and Working Conditions

Work is medium to heavy. Constant standing, walking, reaching, turning, stooping, bending, stretching, and lifting to perform housekeeping tasks and to assist children in their activities.

Field of vision must be wide to observe behavior in distant corners of cottage or room simultaneously. Near visual acuity to prepare activity reports.

Work area may be noisy from voices and activities of children.

Work is performed both indoors and outdoors.

DIRECTOR, DIAGNOSTIC AND EVALUATION CLINIC

070.108
(0-26.10)

clinic administrator

OCCUPATIONAL DEFINITION

Plans, coordinates, and participates in activities of diagnostic clinic serving suspected mental retardates: Establishes and implements procedures for admitting and examining suspected retardates and providing related services, such as home visits, parent counseling, and follow-up evaluations. Supervises and coordinates activities of staff engaged in providing clinical, maintenance, and clerical services. Arranges for treatment and specialized diagnostic services, such as surgery or neurological examinations, performed elsewhere. Conducts conferences with clinic staff to arrive at diagnostic conclusions, resolve administrative problems, and keep staff informed of changes in responsibilities or procedures. Interprets clinic program to parents and visitors, and explains diagnostic findings and patient-care or rehabilitation recommendations to parents. Represents clinic at professional meetings and in contacts with other public or private organizations serving community health and welfare needs. Prepares or directs preparation of records, recommendations, and reports reflecting clinic activities for budgetary approval and for use by public health, welfare, and school officials. May examine patients and provide emergency or inpatient treatment. May participate in research activities being conducted at clinic in such fields as maternal health, pediatrics, psychology, or nutrition. May instruct clinic staff, medical and nursing students, residents, and interns in diagnosis and treatment of the retarded.

EDUCATION, TRAINING, AND EXPERIENCE

Typically, a qualified PEDIATRICIAN or other licensed physician, usually with substantial experience in child health and in retardation, is selected to direct a diagnostic and evaluation clinic. A few such clinics are headed by PSYCHIATRISTS, CLINICAL PSYCHOLOGISTS, or SOCIAL WORKERS, and at least one by the holder of a Masters' degree in Public-Health Nursing. Experience in research methodology, teaching, public speaking, medical administration, and clinical practice is highly desirable, as is familiarity with such allied disciplines as obstetrics, speech pathology, orthopedics, and neurology.

WORKER TRAITS

Aptitudes

Verbal ability required to understand medical terminology and to communicate with parents, staff, and others of varying levels of knowledge or comprehension.

Numerical ability to deal with variety of budgeting and statistical relationships involved in directing clinic.

Interests

A preference for situations involving business contact with people to direct staff activities and to participate in professional activities, as representative of clinic.

A preference for activities resulting in prestige or the esteem of others, reflected in administrative responsibilities and community standing.

A preference for situations involving people and ideas to evaluate case findings, to formulate plans and recommendations, and to discuss clinic problems and activities with others.

Temperaments

Ability to function in situations characterized by variety and change, necessary for responding to varied responsibilities and individuals having different capacities and needs.

Ability to direct, control, or plan an activity or the activities of others, required for exercising direction over clinic activities and personnel.

Ability to deal with people of varying capacities in terms of their total personalities to supervise subordinate personnel, and cooperate with other groups in the community or profession.

Ability to form conclusions based both on measurable or verifiable criteria and on sensory or judgmental criteria in planning, scheduling, and otherwise carrying on supervisory and administrative activities.

Physical Demands and Working Conditions

Work is sedentary.

Considerable talking and hearing involved in interpersonal relationships with staff, parents, and community groups.

Work is performed inside.

DIRECTOR, SHELTERED WORKSHOP

187.118
(0-99)

executive director; training coordinator

OCCUPATIONAL DEFINITION

Directs activities of sheltered occupational workshop and provides counsel and vocational placement assistance to mentally or physically handicapped workers: Approves applications for workshop, taking into consideration handicapped worker's condition, age, ability, previous training and experience, and employment potential outside sheltered environment. Supervises activities of clerical personnel, volunteer workers, foremen, and instructors, depending on size of establishment. Evaluates workers' productivity, personal adjustment, and related aspects of performance to determine need for additional training or reassignment, or suitability for placement outside sheltered environment. Advises handicapped workers experiencing personal, financial, and other difficulties related to their vocational adjustment. Visits business establishments and other organizations to solicit jobs for workshop employees and obtain contracts for workshop products. Cooperates with schools and other rehabilitation and welfare agencies to refer or obtain handicapped workers. Addresses civic groups and participates in variety of public information activities to solicit funds, enlist volunteers, explain workshop services, and increase public awareness of problems and needs of the handicapped. Prepares and presents budget to governing board of organization sponsoring workshop. Audits records kept by other personnel to determine financial status of enterprise, or personally keeps workshop books. Authorizes disbursements for supplies and wages. May train or participate in training workers and in supervising their work activities.

EDUCATION, TRAINING, AND EXPERIENCE

Highly variable. Bachelor's or master's degree and experience in business administration, production management, education, vocational guidance and rehabilitation, or welfare or social work administration desirable. Some workshops prefer candidates with a college degree plus extensive experience with the handicapped. Others emphasize proven management experience and specialized competence in sales, accounting, inventory control, production management, purchasing, training, and fund raising.

WORKER TRAITS

Aptitudes

Verbal ability to communicate with handicapped persons, staff members, potential or actual customers, community leaders, parents, and other groups of varying levels of comprehension.

Numerical ability and clerical perception to prepare or audit financial records and workshop budget.

Interests

A preference for working with people for their presumed good, necessary in serving the handicapped.

A preference for activities involving business contact with people to solicit jobs and contracts, and to represent workshop in community.

Temperaments

Ability to function in situations characterized by variety and change, required for variegated duties.

Ability to direct, control, and plan an activity or the activities of others employed by workshop.

Ability to influence people to buy workshop products, contribute funds, and support workshop activities.

Ability to form judgments about managerial problems on basis of sensory and judgmental criteria, such as estimates of market potential for certain products, and measurable or verifiable criteria, such as customer preferences and guidelines of workshop governing board.

Physical Demands and Working Conditions

Work is sedentary to light.

Considerable talking and hearing required in giving orders, discussing worker problems, soliciting business, and speaking at community functions.

Near visual acuity required to prepare and read budget and other records.

Work environment may be noisy.

Work is normally performed inside.

DIRECTOR, SPECIAL EDUCATION

094.118

(O-31.)

OCCUPATIONAL DEFINITION

Administers programs and formulates policies for special education services in public schools and institutions serving handicapped, emotionally disturbed, gifted, or other exceptional children: Coordinates efforts of subordinates engaged in work activities, such as screening applications for admission to special education classes, preparing budgets and statistical reports, arranging transportation for handicapped children, and certifying eligibility of applicants for vocational rehabilitation services. Establishes and implements policies for identification and placement of exceptional children in appropriate special education program according to their academic, emotional, physical, and behavioral requirements. Develops standards for special education facilities, curricula, and teacher certification in conformity with law, official policies, and principles of educational methodology. Evaluates existing programs and inspects facilities, recommending modifications or extensions to meet changing needs. Maintains liaison with other public and private agencies serving exceptional children, referring children requiring services beyond scope of special education programs. Certifies eligibility of children for tuition grants to private institutions, where provided by law, and evaluates recipient institutions for adherence to prescribed standards. Organizes and conducts training programs and conferences for instructional and other special education personnel. Provides consultative services to individuals and groups requiring assistance in meeting special education needs of exceptional children. Confers with parents to explain programs and participates in variety of public information activities to improve public understanding of special education problems.

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EDUCATION, TRAINING, AND EXPERIENCE

Generally, educational requirements range from a master's degree to an Ed.D. or Ph.D. in Education or Special Education, usually in addition to experience in special education teaching, educational administration, or other exposure to the problems of exceptional children. In smaller communities, teachers with long experience and less specialized academic training may perform these duties as part of broader administrative responsibilities. Statewide, a doctorate may be more frequently required than at the community level, although the trend is toward the doctoral requirement wherever the occupation exists.

Foreman, Sheltered Workshop demonstrating technique of folding and salvaging newspapers for use in wrapping and packing merchandise.

WORKER TRAITS

Aptitudes

Verbal ability required to understand and communicate with interdisciplinary specialists and to read and prepare reports, articles, and other materials dealing with special education methodology.

Numerical ability required to understand statistical relationships and other quantitative aspects of special education programs.

Interests

A preference for situations involving business contact with people to carry out administrative and supervisory responsibilities and participate in a variety of public-contact activities.

A preference for activities concerning people and the communication of ideas to communicate with others, to evaluate programs, facilities, and conditions in school system, and to plan or recommend changes or extensions meeting needs of exceptional children.

Temperaments

Ability to deal with people and with a variety of problems and work situations demanding demonstrably different responses.

Ability to direct, control, or plan activities, such as training programs and conferences, as well as daily work program.

Ability to form generalizations or conclusions on basis of measurable or verifiable criteria and sensory or judgmental criteria, such as the relationship between existing special education programs and anticipated community needs.

Physical Demands and Working Conditions

Work is sedentary.

Talking and hearing to address conferences, training sessions, and civic groups, and to carry on daily work program.

Work is performed indoors.

FOREMAN, SHELTERED WORKSHOP

187.121
(5-91)

training supervisor; workshop supervisor

OCCUPATIONAL DEFINITION

Trains, supervises, and coordinates activities of mentally or physically handicapped employes of sheltered occupational workshop: Assigns workers to production activities and trains workers in desirable work habits and job tasks, such as repairing furniture, assembling calendars, or operating mimeograph. Establishes work priorities and schedules production according to capabilities of workers and contract terms or customer needs. Provides assistance to each worker in completing tasks, depending on nature of task and worker's handicap. Inspects work of each employe for adherence to quality standards and production requirements. Maintains inventory of materials and reorders supplies as necessary to maintain uninterrupted production. Keeps attendance and production records for each employe to ensure payment of equitable wage. Confers with workshop director to resolve problems of production and worker adjustment. May supervise activities of volunteers and instructional assistants, depending on size of workshop. May advise workers experiencing personal, financial, or other difficulties related to their vocational adjustment.

EDUCATION, TRAINING, AND EXPERIENCE

Highly variable. Frequently, former vocational-arts instructors, skilled craftsmen, or industrial foremen are selected, depending on workshop. Where workshop activities are confined to such routine tasks as assembly work, little production experience may be required. In many workshops, the chief requirement may be a demonstrated desire to work with the handicapped, plus some experience in industry, youth activities, social work, or broad related activity.

WORKER TRAITS

Aptitudes

Verbal ability to train and supervise activities of workers.

Clerical perception and numerical ability to keep production, inventory, and payroll records.

Spatial perception, motor coordination, finger dexterity, and manual dexterity to demonstrate work processes and assist workers as necessary.

Interests

A preference for activities concerned with things and objects, such as materials, tools, and work aids, required in production or assembly.

A preference for dealing with people for their presumed good, necessary in serving the handicapped.

A preference for business contact with people, required for training activities and supervision of workshop personnel.

Temperaments

Ability to deal effectively with variety of work activities and types of individuals.

Ability to deal with people in actual job situations beyond giving and receiving instructions, needed for supervising, training, and assisting workers.

Ability to direct, control, and plan workshop production.

Ability to make decisions on basis of measurable or verifiable criteria and in accord with set limits, tolerances, and standards for determining acceptability of worker production, attendance, and rehabilitative progress.

Physical Demands and Working Conditions

Work is light to medium. Frequent standing required.

Reaching, handling, fingering, feeling, and near visual acuity needed to inspect products and assist workers. Near visual acuity to maintain records.

Frequent talking and hearing required to instruct workers.

Work environment may be noisy.

Work is performed inside.

JOB COORDINATOR

045.108
(0-36.40)
placement specialist

OCCUPATIONAL DEFINITION

Provides job placement and counseling services to employable mentally retarded persons completing occupational training or rehabilitation program: Evaluates vocational potential of applicant from school and case records and discussions with teachers or others familiar with retardate's progress. Counsels retardates and parents to explain realistic career choices open to the mentally retarded, and to assess their interests and capabilities in terms of available employment opportunities, determined from surveys of local employers' needs. Attempts to place applicants in appropriate job or employer training program according to demonstrated vocational potential. Conducts follow-up counseling for trainee and employer to resolve problems and facilitate retardate's adjustment to full or part-time employment. Cooperates in placement activities of other public and private organizations serving the handicapped by making and accepting referrals of retardates and exchanging information regarding local employment opportunities and training needs. Visits employers and participates in variety of public information and civic activities to solicit job opportunities and to increase public acceptance of retarded workers. Participates in planning of occupational training courses and programs to meet needs of retardates and employers. Prepares case-history reports and keeps records of student placements and vocational progress. When concerned only with soliciting job vacancies, may be designated JOB DEVELOPMENT SPECIALIST.

EDUCATION, TRAINING, AND EXPERIENCE

Variable. In some cases, this is not a full-time position and qualifications may differ according to worker's other duties. Worker's background may be in education, vocational counseling, social work, psychology, or other specialty; and incumbent may also be required to teach, administer tests, or participate in similar activities. Ideally, career preparation for this occupation should closely parallel that for REHABILITATION COUNSELOR, to which it is closely related.

WORKER TRAITS

Aptitudes

Verbal ability to counsel handicapped persons, to solicit job vacancies, to prepare case reports, to read medical and psychiatric evaluations of client, and to participate in public information activities.

Clerical perception to prepare records of retardate placements, progress, and related data.

Interests

A preference for activities concerned with people and the communication of ideas to communicate with retardates, parents, and employers.

A preference for working with people for their presumed good, necessary in serving the handicapped.

Temperaments

Ability to deal with people in terms of their total personalities to counsel clients and perform other public-contact functions.

Ability to make decisions influencing client's welfare on basis of sensory or judgmental criteria.

Ability to function in situations involving variety and change, necessary in responding to varied individuals and degrees of retardation.

Physical Demands and Working Conditions

Talking and hearing required constantly in contacts with clients and employers, and in related activities.

Seeing required to keep records and read and prepare case-history reports.

Work is usually sedentary and is performed indoors.

MUSIC THERAPIST

079.128

(0-39.)

OCCUPATIONAL DEFINITION

Plans and conducts medically prescribed musical instruction and therapy program as part of treatment of the mentally or physically handicapped to effect changes in their attitudes and adaptive behavior: Confers with other members of rehabilitation team in planning musical activities of therapeutic benefit, in accordance with specific disabilities of patients and their demonstrated needs, capabilities, and interests. Directs and participates in instrumental and vocal music activities, such as individual or group singing, playing in bands and orchestras, and attending concerts given by guest musicians or other patients to improve morale, attitudes, motor skills, behavior, and receptivity to other therapy. Instructs patients in prescribed instrumental or vocal music participation, individually or in groups. Observes patients' reactions during activities and prepares case reports describing symptoms indicative of progress or regression to facilitate continuity of therapy by other members of rehabilitation team. May conduct or participate in other activities, such as dancing or games to accompaniment of music, in concert with volunteer workers, teachers, or RECREATIONAL THERAPISTS.

EDUCATION, TRAINING, AND EXPERIENCE

Baccalaureate degree in Music Therapy. College graduates with a degree in Music may qualify by taking additional postgraduate courses, or in certain cases, by substituting relevant qualifying experience. A six-month internship in an approved psychiatric institution, affiliated with an accredited school offering a degree in Music Therapy, is required. Master's degree programs are now offered by some universities for students desiring more intensive preparation, frequently the key to more rapid advancement within the occupation.

WORKER TRAITS

Aptitudes

Verbal ability to instruct patients in therapeutic activities and to understand implications of medical terminology in planning therapy program for each patient.

Form perception required to read music rapidly while playing instruments.

Motor coordination, finger dexterity, and manual dexterity needed to play various instruments, such as piano, violin, accordion, and flute.

Interests

A preference for activities concerned with people and the communication of as to instruct patients and communicate with staff.

A preference for activities involving working with people for their presumed good to effect improved adjustment of handicapped patients.

A preference for activities of an abstract and creative nature, evidenced by the capacity to translate impressions into musical form or to appreciate such translation by others.

Music Therapist leading a group of adult retardates in "community sing" to improve their psychological and social adjustment and their receptivity to other rehabilitation activities.

Temperaments

Ability to direct, control, and plan activities or the activities of others, necessary in directing musical programs and instructing patients.

Ability to deal with people in actual job situations beyond giving and receiving instructions, necessary in providing therapy to patients.

Ability to form conclusions or impressions on basis of feelings, ideas, or facts and according to sensory or judgmental criteria, evidenced by appreciation of musical form and compositions and ability to relate it to patients' progress in therapy program.

Physical Demands and Working Conditions

Work may range from sedentary to light depending on nature of musical activity program.

Reaching, handling, and fingering required to play instruments.

Hearing required to produce and evaluate musical expression, and talking required to instruct patients.

Considerable noise may result from discordance of many patients playing instruments simultaneously, particularly when lacking in musical expertise.

Work is normally performed inside.

NURSE, STAFF, PUBLIC HEALTH

075.128
(0-33.56)

public health nurse

OCCUPATIONAL DEFINITION

Provides nursing services and instruction in health education and home care of the physically or mentally ill in clinics, schools, and private homes served by public health agencies: Visits homes on request to investigate actual or potential health problems, such as communicable diseases, mental retardation, alcoholism, or other infirmities of persons eligible for public health services. Interviews patient and members of family and observes general condition of patient to determine existence and severity of condition. Gives emergency and short-term nursing care under instructions from medical practitioner, referring patient to clinic or other diagnostic or therapeutic resources if necessary. Evaluates home conditions, such as sanitation, adequacy of diet, and family attitudes toward infirm member to determine adequacy of family health management or desirability of removing patient from home environment. Advises family to seek specialized rehabilitative services or institutional care for patients unable to benefit from home care. Instructs family in accepted health, home management, and patient-care practices, depending on home conditions and patient requirements. Assists families in obtaining relief from social, emotional, financial, and related problems through referrals to community welfare agencies or other resources. Cooperates with representatives of welfare agencies, school officials, private physicians, and other interested persons or groups in providing information and assistance to multi-problem families. Participates in preventive health programs in schools or clinics, performing such duties as conducting classes in prenatal and infant care, inoculating children against disease, assisting during chest X-ray examinations, and taking blood samples for laboratory analysis. Prepares variety of records and reports reflecting activies to assist public health officials in meeting present and future needs. May specialize in one phase of public health nursing, such as pediatrics, tuberculosis control, or mental retardation services.

EDUCATION, TRAINING, AND EXPERIENCE

Completion of training in an accredited school of nursing required. Most public health agencies specify completion of a four or five-year college program leading to a baccalaureate degree in Public Health Nursing. For higher-echelon positions in administration, a master's degree is rapidly becoming a customary requirement.

WORKER TRAITS

Aptitudes

Verbal ability to deal with patients and families of varying backgrounds, to understand medical terminology and concepts, and to prepare case reports.

Spatial perception to understand functioning of human body and to apply nursing techniques in practical situations.

Some clerical perception required to prepare case records.

Interests

An interest in working for people's presumed good, necessary in serving the ill and handicapped.

An interest in scientific and technical activities for understanding and responding to medical problems and concepts.

An interest in people and the communication of ideas to instruct patients and families in health education.

Temperaments

Ability to direct or plan activities such as patient-care programs.

Ability to perform activities characterized by variety and change, both in terms of nature and criticality and in terms of work environment and patients served.

Ability to deal with people to help them obtain specialized treatment, urge them to improve home conditions, and assist them in applying patient-care recommendations.

Ability to form conclusions on basis of verifiable and sensory or judgmental criteria, such as patient's condition or conditions in the home or among members of family.

Physical Demands and Working Conditions

Work ranges from sedentary to light, as incumbent may be subject to such exertions as walking, driving, and climbing stairs to visit patients.

Reaching and handling required to attend to patients' needs.

Talking and hearing involved in educating patients and families.

Near visual acuity required in examining patient, observing home conditions, and preparing records.

Work is normally performed indoors.

OCCUPATIONAL THERAPIST

079.128

(0-32.04)

OCCUPATIONAL DEFINITION

Organizes and conducts medically prescribed occupational therapy and instruction program in hospital or similar institution to facilitate rehabilitation of the mentally or physically handicapped: Plans occupational therapy program involving such activities as manual arts and crafts, practice in functional prevocational and homemaking skills and activities of daily living, and participation in variety of sensori-motor, educational, recreational, and social activities designed to help patients regain physical or mental functioning or adjust to their handicaps. Consults with other members of rehabilitation team to select most appropriate activity program consistent with needs and capabilities of each patient and to coordinate occupational therapy with other therapeutic activities. Teaches patients skills and techniques required for participation in activities and evaluates patients' progress, attitudes, and behavior as related to their rehabilitative potential. Prepares reports reflecting patients' reactions to activity program for review by other members of therapy team. Requisitions supplies and equipment. Lays out materials for patient use and cleans and repairs tools at end of therapy sessions. May direct activities of one or more assistants or volunteer workers. May conduct training programs or participate in training medical and nursing students and other workers in occupational therapy techniques and objectives. May design, make, and fit adaptive devices, such as splints and braces for patient use, following medical prescription.

EDUCATION, TRAINING, AND EXPERIENCE

B. S. degree in Occupational Therapy from accredited institution offering training in this specialty. Graduates may take a supervised clinical internship of nine to ten months' duration to prepare for professional registration. For students who receive training in occupational therapy after completing a baccalaureate degree in another field, an advanced-standing internship is offered, lasting 18 months. A national examination, given by the American Occupational Therapy Association, is open to graduates who, upon successful completion, may enter practice as a Registered Occupational Therapist (O.T.R.). Graduate study in such fields as psychology or child development helpful.

WORKER TRAITS

Aptitudes

Verbal ability to instruct patient, prepare case reports, and implement prescribed therapy program requiring familiarity with medical terminology.

Spatial ability to carry out variety of occupational therapy activities, such as woodworking, weaving, and other manual arts.

Motor coordination, manual dexterity, and finger dexterity to demonstrate manual skills.

Some color discrimination for art activities.

Interests

A preference for working with people for their presumed good to meet the therapeutic needs of the handicapped.

A preference for situations concerned with people to communicate with the handicapped and to motivate them toward recovery.

A preference for activities of an abstract or creative nature to fashion such articles as jewelry items involving artistic expression.

Temperaments

Ability to perform in situations requiring the direction, control, or planning of an activity or the activities of others to initiate and conduct therapy program.

Ability to deal with many different kinds of activities and people to effect patients' improved adjustment and to motivate them to initiate or continue occupational therapy activities.

Ability to form conclusions reflecting patients' progress on basis of sensory or judgmental criteria, indicated by their reaction to therapy activities.

Ability to reflect personal feelings in therapy activities, involving translating them into art forms and other instruments of creative expression.

Physical Demands and Working Conditions

Work may range from sedentary to light, depending on nature of activities and therapy setting.

Considerable reaching, handling, and fingering involved in demonstrating occupational therapy techniques to patients.

Near visual acuity required for such activities as weaving and bead work. Color discrimination required for art activities.

Talking and hearing to instruct patients.

Work is normally performed inside.

OCCUPATIONAL THERAPY AID

079.368
(2-42.33)

attendant, occupational therapy;
occupational therapy assistant

OCCUPATIONAL DEFINITION

Assist OCCUPATIONAL THERAPIST in conducting medically prescribed occupational therapy and instruction program to facilitate rehabilitation of mentally or physically handicapped patients: Leads patients in hospitals or other institutions in manual and creative arts, games, crafts, and similar activities, and in activities of daily living. Consults OCCUPATIONAL THERAPIST to exchange information regarding patients' progress and changes in program procedures. Prepares and lays out work materials and supplies, and assists in maintenance of equipment.

EDUCATION, TRAINING, AND EXPERIENCE

High school graduation. Completion of a 12- to 18-week course (minimum of 430 clock hours) in occupational therapy (either general practice or psychiatric), given at various hospitals and health centers, is required for registration by the American Occupational Therapy Association as a Certified Occupational Therapy Assistant, after which incumbent works under supervision of a registered OCCUPATIONAL THERAPIST.

WORKER TRAITS

Aptitudes

Verbal ability to communicate with patients and to implement prescribed therapy program requiring familiarity with medical terminology.

Spatial ability to carry out variety of occupational therapy activities, such as woodworking, weaving, and other manual arts.

Motor coordination, manual dexterity, and finger dexterity to demonstrate manual skills.

Some color discrimination required for art activities.

Interests

A preference for working with people for their presumed good to help meet therapeutic needs of the handicapped.

A preference for situations concerned with people to communicate with patients and staff.

A preference for abstract, creative activities to participate in such efforts as jewelry making and design.

Temperaments

Ability to deal with many different kinds of activities and people to effect patients' improved adjustment and to motivate them to initiate or continue occupational therapy activities.

Ability to reflect personal feelings in therapy activities, involving translating them into art forms and other instruments of creative expression.

Physical Demands and Working Conditions

Work may range from sedentary to light, depending on nature of activities and therapy setting.

Considerable talking, reaching, handling, and fingering involved in demonstrating occupational therapy techniques to patients.

Near visual acuity required for such activities as weaving and beadwork. Color discrimination needed for certain artwork activities.

Work is normally performed inside.

PEDIATRICIAN

070.108

(0-26.10)

OCCUPATIONAL DEFINITION

Diagnoses and treats diseases and disabilities of children and adolescents, counsels parents, and assists them in meeting total needs of multiproblem patients: Examines patients for evidence of disease or abnormal mental or physical development, questioning parent or older child to develop case history and facilitate diagnosis. Obtains specimens, such as blood or urine, for laboratory analysis and refers patient to specialized diagnostic center or practitioner as necessary for diagnosis or treatment. Confers with practitioners in specialized fields, such as neurology or orthopedics, to exchange findings and plan treatment or rehabilitation program most beneficial to patient. Administers or prescribes special diets, medication, immunizations, and other courses of treatment to alleviate or prevent child-health problems. Counsels parents in meeting child-care problems, in obtaining specialized services for multi-problem children, and in minimizing or avoiding genetic hazards in future offspring. Certifies children for admission to schools, clinics, camps, and other facilities requiring medical clearance and testifies at adoption proceedings and other judicial hearings as requested. May direct activities of diagnostic clinic, hospital, residential institution, or other establishment dispensing pediatric services. May coordinate maternal and child-health services of local or State public health or welfare department. May conduct or direct research in pediatrics and related disciplines to develop improved approaches to child-health problems. May provide consultative services to organizations requiring pediatric advice. May specialize in one or more aspects of child health, such as metabolic disorders or mental retardation. These services may be performed by the family physician, who may be a GENERAL PRACTITIONER.

EDUCATION, TRAINING, AND EXPERIENCE

M. D. degree plus internship and two to three years' pediatrics residency required. Some employers require several years' pediatrics practice, preferably involving substantial contact with the mentally retarded. Where incumbent also functions as director of an institution or clinic, qualifications may include demonstrated administrative or research experience plus specialized experience with the retarded.

Pediatrician examining suspected retardate at public diagnostic and evaluation clinic.

WORKER TRAITS

Aptitudes

Verbal ability to communicate at various levels with patients, lay persons, and fellow members of the rehabilitation team, and to understand medical terminology.

Numerical ability to understand and present quantitative aspects of patient care, such as test scores and statistical relationships expressed in case histories and medical literature.

Spatial perception to understand functioning of human physiology and to perform diagnostic examinations.

Motor coordination, manual dexterity, finger dexterity, and color discrimination to perform diagnoses and conduct physical aspects of treatment.

Interests

A preference for activities involving working for people for thei presumed good, necessary in serving the handicapped.

A preference for activities involving people and the communicatio of ideas to serve patients and counsel parents, to evaluate patient rehabilitative potential, and to plan therapy program.

A preference for activities of a scientific and technical nature t comprehend scientific aspects of medical training and clinical prac tice.

Physical Therapist exercising the arm of a retarded patient. Physical disabilities in the retarded require the services of virtually every health specialty.

Temperaments

Ability to direct, control, or plan such activities as therapy programs involving action by others.

Ability to form conclusions based both on sensory or judgmental criteria and measurable or verifiable criteria, required in diagnosis and treatment of patients from results of clinical observations and such objective measures as diagnostic tests.

Ability to deal with people in terms of their total personalities to counsel retardates and parents.

Physical Demands and Working Conditions

Work is mostly sedentary.

Some reaching, handling, and feeling may be required for diagnosis of physical conditions coexisting with or causing retardation.

Talking and hearing required to communicate with patients and other members of therapy team.

Near visual acuity and color discrimination required in diagnosis.

Work is performed inside.

PHYSICAL THERAPIST

079.378

(0-52.22)

physiotherapist

OCCUPATIONAL DEFINITION

Organizes and conducts medically prescribed physical therapy program in hospital, residential institution, outpatient clinic, or public health agency to minimize or correct physically handicapping conditions or improve the motor development of the mentally retarded: Plans therapy program for each patient, involving physical means, such as exercise, massage, heat, water, light, and electricity as prescribed by physician. Applies diagnostic and prognostic muscle, nerve, joint, and functional ability tests. Directs and aids patients in active and passive exercises, muscle reeducation, and gait (walking) and functional training, utilizing pulleys and weights, steps, and inclined surfaces. Makes use of equipment, such as ultraviolet and infrared lamps, low-voltage generators, diathermy, and ultrasonic machines. Gives whirlpool and contrast baths, and applies moist packs. Directs patients in care and use of wheelchairs, braces, canes, crutches, and prosthetic and orthotic devices. Gives instruction in posture control and therapeutic procedures to be continued by patient. Adapts conventional physiotherapeutic techniques to meet the needs of patients unable to comprehend verbal commands or voluntarily carry out a regime of therapeutic exercise. Evaluates, records and reports patient's progress for review by other members of rehabilitative team. Requisitions supplies and equipment. May direct and supervise activities of assistants or volunteer workers. May conduct or participate in training medical and nursing personnel, students, and other workers in physical therapy techniques and objectives.

EDUCATION, TRAINING, AND EXPERIENCE

B. S. degree in Physical Therapy from an accredited institution offering training in this speciality, plus a supervised clinical internship of approximately four months' duration to prepare for professional registration. Individuals holding a baccalaureate degree in a related field may enroll in a certificate course, offered by some schools, for a period of 18 months to two years. Many States now require passage of an examination before a license to practice physical therapy is granted. Master's degree programs are offered by some universities. Short courses are offered for specialized training in specific therapeutic skills.

WORKER TRAITS

Aptitudes

Verbal ability to instruct patients, prepare case reports, and implement prescribed therapy program requiring familiarity with medical terminology.

Spatial ability to devise and carry out variety of physical therapy activities involving adaptive responses to various exercises and other procedures.

Motor coordination, manual dexterity, and finger dexterity to demonstrate therapeutic procedures.

Interests

A preference for working with people for their presumed good to meet the therapeutic needs of the handicapped.

A preference for situations concerned with people to communicate with the handicapped and to motivate them toward recovery.

Temperaments

Ability to perform in situations requiring the direction, control, or planning of an activity or the activities of others to initiate and conduct therapy program.

Ability to deal with many different kinds of activities and people to effect patients' improved adjustment and to motivate them to initiate or continue physical therapy.

Ability to form conclusions reflecting patients' progress on basis of both sensory or judgmental criteria and measurable or verifiable criteria, indicated by their reaction to therapy activities.

Physical Demands and Working Conditions

Work may range from light to heavy depending on nature of activities and therapy setting.

Considerable reaching, handling, and fingering involved in demonstrating therapy techniques to patients.

Near visual acuity required to prepare case records and reports.

Talking and hearing to instruct patients.

Work is normally performed inside.

PLANNING COORDINATOR

188.118
(0-99.7)

OCCUPATIONAL DEFINITION

Develops comprehensive plans for providing improved or extended mental retardation services throughout State in accord with present or anticipated needs: Establishes or modifies statewide data-collection procedures to obtain accurate, current, and meaningful information concerning existing or projected mental retardation services, facilities, and personnel resources in relation to demand. Devises and carries out special studies to facilitate administrative or legislative decisions, interpreting and presenting results according to accepted statistical-analysis procedures. Prepares comprehensive plans for extending public services and improving public and private facilities for the retarded in accord with present and future needs. Maintains continuing familiarity with changes in medical, social, rehabilitative, legislative, fiscal, and other aspects of retardation to recommend modified approaches to retardation problems. Visits communities throughout State to observe conditions and to confer with community leaders, legislators, health and welfare officials, educators, and others concerned with retardation problems. Participates in variety of public information activities, such as talks before broadcast audiences and community or parents' organizations to improve public understanding and acceptance of the retarded.

EDUCATION, TRAINING, AND EXPERIENCE

Typically, this position requires professional training and standing in education, medicine, social work, or psychology, preferably with training or experience in statistics, community organization planning, public information, public administration, public health administration, or public health education. He should have previously demonstrated organizational ability and the ability to communicate effectively with the public, government officials, and others concerned with retardation problems.

WORKER TRAITS

Aptitudes

Verbal ability required to understand and communicate with interdisciplinary specialists and to read reports, articles, and other materials dealing with program activities.

Numerical ability required to understand statistical and budgetary relationships and other quantitative aspects of mental health programs.

Interests

A preference for situations involving business contact with people to carry out responsibilities and participate in variety of public-contact activities.

A preference for situations concerned with people and the communications of ideas to evaluate mental health programs, facilities, and conditions throughout State, to plan or recommend changes or extensions meeting needs of the retarded, and to communicate effectiv · with various individuals and groups.

A preference for responsible, prestigious public-service activities enjoying the esteem of others, reflected in nature of responsibilities and position within State government hierarchy.

Temperaments

Ability to deal with people and with a variety of problems and work situations demanding demonstrably different responses.

Ability to plan activities, such as construction programs and staff conferences, as well as daily work program.

Ability to form generalizations or conclusions on basis of both measurable or verifiable and sensory or judgmental criteria, such as the relationship between existing mental health programs and anticipated needs.

Physical Demands and Working Conditions

Work is sedentary.

Talking and hearing to address conferences, broadcast audiences, and civic groups, and to carry on daily work activities.

Work is performed indoors.

PRINCIPAL

091.118
(0-31.10)
director

OCCUPATIONAL DEFINITION

Directs activities of public or private day school for mentally retarded children or directs educational program of residential institution serving retarded and multi-problem patients: Plans instructional program according to age, abilities, and needs of students, taking into consideration accepted standards for special education programs and availability of facilities and instructional personnel. Interviews applicants and parents to determine suitability for admission, obtain case histories, and facilitate placement of children in appropriate class or grade consistent with their age and ability. Refers rejected applicants to other schools or agencies able to accommodate them, or advises parents of other alternatives for meeting their children's needs. Conducts staff meetings and provides advice, training, and assistance to instructional personnel to increase their effectiveness and resolve problem situations. Prepares or directs preparation of records and reports relating to school activities and progress of students. Confers with medical and other specialists and with representatives of rehabilitation and welfare agencies to exchange information concerning student needs. Evaluates performance and supervises work activities of subordinates. Counsels and disciplines students as requested. Participates in variety of professional, public information, and student activities as representative of faculty or school. Where school is adjunct to residential institution, coordinates training of each child with total rehabilitation program of institution. May teach. May participate in educational research activities being carried out at institution. May order or authorize purchase of supplies and materials.

EDUCATION, TRAINING, AND EXPERIENCE

Master's degree in Education, Educational Administration, or Special Education preferred, plus substantial experience in teaching the handicapped. Requirements may vary somewhat among public and private institutions, size of school, and age or retardation level of group served. In schools serving older, educable mental retardates, a background in industrial arts education with additional coursework in special education may be acceptable. In developmental school programs and those affiliated with hospitals or clinics, training in psychology may be required with qualifications ranging up to a Ph.D. degree plus clinical experience.

WORKER TRAITS

Aptitudes

Verbal ability required to direct educational program and to confer with parents, staff, and others of varying levels of comprehension.

Clerical perception required in preparing or verifying records, such as attendance tabulations, case histories, and schedules of teachers.

Interests

A preference for situations involving people and the communication of ideas to direct school activities and participate in community affairs as representative of faculty or school.

A preference for activities resulting in prestige or the esteem of others, associated with administrative and public-contact functions and nature and level of responsibilities.

Temperaments

Ability to function in situations characterized by variety and change to respond to varying job demands and types of individuals.

Ability to direct, control, or plan an activity or the activities of others, required for exercising direction over school activities and personnel.

Ability to deal with people of varying capacities and in terms of their total personalities to counsel students, supervise teachers and other personnel, and cooperate with other groups in the community.

Ability to form conclusions based on sensory or judgmental criteria in planning, scheduling, supervising, disciplining, and otherwise carrying on supervisory and administrative activities.

Physical Demands and Working Conditions

Work is sedentary.

Considerable talking and hearing involved in interpersonal relationships with students, faculty, parents, and community groups.

Near visual acuity to prepare or verify records.

Work is performed inside.

PROGRAM DIRECTOR

188.118

(0-99.7)

state mental program coordinator

OCCUPATIONAL DEFINITION

Plans and coordinates State and local programs for diagnosis, care, and rehabilitation of the mentally retarded: Conducts surveys to identify need for establishment or expansion of facilities, such as diagnostic clinics and day-care centers, to provide adequate local or regional service to retardates, Confers with community leaders, educators, public health officials, and others concerned with problems of the retarded to assess and organize programs for combating retardation within each community or area. Directs maintenance of roster listing names and addresses of physicians, welfare officials, and others providing services to the retarded and their

families to facilitate coordinated approach to retardation problems. Develops and implements plans for locating, staffing, and constructing facilities for diagnosis, care, and rehabilitation of the retarded according to demonstrated needs. Inspects existing facilities and proposed construction sites to determine conformity to State requirements and their effectiveness in meeting program objectives. Evaluates construction plans and estimates operating costs of projected facilities to provide data for administrative decisions and budgetary approval. Coordinates activities with those of other public programs and with officials of neighboring States to insure maximum effectiveness and prevent duplication of services to the retarded. Represents department in contacts with public and private organizations, at professional meetings, and at speaking engagements to exchange information concerning programs and improve public understanding of retardation problems. In most States, collaborates with and supervises PLANNING COORDINATOR.

EDUCATION, TRAINING, AND EXPERIENCE

Many States require or prefer a qualified physician, particularly a PEDIATRICIAN or PSYCHIATRIST. A PSYCHOLOGIST, SOCIAL WORKER, or educator holding a Ph.D. may also be acceptable. Usually the incumbent will have had substantial administrative experience and thorough familiarity with mental health problems and resources. In some States, responsibility for coordinating mental retardation services is combined with broader mental health program activities. Appointments are made by the governor of each State.

WORKER TRAITS

Aptitudes

Verbal ability required to understand and communicate with interdisciplinary specialists and to read reports, articles, and other materials dealing with program activities.

Numerical ability required to understand statistical and budgetary relationships and other quantitative aspects of mental health programs.

Interests

A preference for situations involving business contact with people to carry out administrative and supervisory responsibilities and participate in variety of public-contact activities.

A preference for situations concerned with people and the communications of ideas to evaluate mental health programs, facilities, and conditions throughout State, to plan or recommend changes or extensions meeting needs of the retarded, and to communicate effectively with various individuals and groups.

A preference for responsible, prestigious public-service activities enjoying the esteem of others, reflected in nature of responsibilities and appointment to them by governor.

Temperaments

Ability to deal with people and with a variety of problems and work situations demanding demonstrably different responses.

Ability to direct, control, or plan activities, such as construction programs and staff conferences, as well as daily work program.

Ability to form generalizations or conclusions on basis of both measurable or verifiable and sensory or judgmental criteria, such as the relationship between existing mental health programs and anticipated needs.

Physical Demands and Working Conditions

Work is sedentary.

Talking and hearing to address conferences, broadcast audiences, and civic groups, and to carry on daily work activities.

Work is performed indoors.

PSYCHIATRIST

070.105

(0-26.10)

OCCUPATIONAL DEFINITION

Diagnoses and treats mental and emotional disorders by medical and psychiatric means and plans or carries out therapy programs for multi-problem patients: Interviews patients, their families, and others familiar with patients' background, general medical history, and symptoms of mental or emotional distress. Examines patients for evidence of physical illness causing or contributing to mental condition, utilizing laboratory or other specialized diagnostic tests as necessary to facilitate diagnosis. Performs psychiatric evaluation of patients to determine nature, severity, and origin of disorder and formulates program of treatment according to physical or psychological cause and probable benefit to each patient. Treats or directs treatment of patients, using appropriate medication and psychotherapeutic techniques as indicated, referring patients to other practitioners as necessary for specialized care. Plans or recommends total rehabilitation programs for disturbed, multi-problem patients, such as the physically handicapped or mentally retarded, conferring with rehabilitation specialists to exchange information relating to patients' condition and progress. Certifies mental condition of psychiatric patients and recommends institutionalization, release, or other disposition as indicated. Prepares case histories and records reflecting patients' progress or regression. May participate in or conduct research in psychiatric problems and improved therapeutic techniques. May instruct psychiatric residents, interns, and other members of institution staff in work activities and accepted approaches to mental health problems. May direct activities of outpatient clinic, hospital psychiatric department, institution for the mentally retarded, or other facility dispensing psychiatric services.

EDUCATION, TRAINING, AND EXPERIENCE

After completion of M. D. degree and medical internship, up to four years' residency in psychiatry in a clinical setting is usually required. Certification requirements dictate passing an examination administered by the appropriate State licensing board. Additional study and experience may be required for key positions, such as the director of a clinic, residential institution, or statewide mental health or mental retardation program.

WORKER TRAITS

Aptitudes

Verbal ability to communicate at various levels with patients, lay persons, and fellow members of the rehabilitation team, and to understand medical terminology.

Numerical ability to understand and present quantitative aspects of patient care, such as test scores and statistical relationships expressed in case histories and psychological literature.

Spatial perception to understand functioning of human physiology and to perform diagnostic examinations.

Motor coordination, manual dexterity, finger dexterity and color discrimination to perform diagnoses and conduct physical aspects of treatment.

Clinical Psychologist testing child's form and spatial recognition to help determine the presence or degree of retardation and the rehabilitation approach best suited to her needs.

Interests

A preference for activities involving working with people for their presumed good, necessary in serving the disturbed and handicapped.

A preference for activities involving people and the communication of ideas to communicate with patients, lay persons, and others to evaluate patients' mental health and rehabilitative potential, and to plan therapy program.

A preference for scientific and technical activities, reflected in medical orientation of psychiatric training and practice.

Temperaments

Ability to direct, control, or plan such activities as therapy programs involving action by others.

Ability to deal with people in terms of their total personalities to assist them in attaining personal adjustment.

Ability to form conclusions based on sensory or judgmental criteria and on measurable or verifiable criteria, required in diagnosis and treatment of patients from results of clinical observations and such objective measures as test scores.

Physical Demands and Working Conditions

Work is mostly sedentary.

Some reaching, handling, and feeling may be required for diagnosis of physical conditions coexisting with or causing retardation.

Talking and hearing required to communicate with patients and other members of therapy team.

Near visual acuity and color discrimination required in diagnosis.

Work is performed inside.

PSYCHOLOGIST, CLINICAL

045.108
(0-36.22)

OCCUPATIONAL DEFINITION

Diagnoses and treats mental and emotional disorders and plans or carries out rehabilitation programs to benefit multi-problem patients: Interviews patient and other persons familiar with his background, administering and interpreting appropriate intelligence, achievement, aptitude, personality, and other tests to assess intelligence and social adaptation, diagnose psychological problems, and formulate program for rehabilitation or treatment. Treats psychological disorders to effect improved adjustment, using accepted therapeutic techniques, such as directive, nondirective, supportive, and play therapy, determining frequency and duration of therapy according to patient's condition. Refers multi-problem cases, such as disturbed persons who are physically ill, handicapped, or mentally retarded, to appropriate rehabilitation agency or participates in planning and implementing rehabilitation programs to meet their specialized needs. Prepares reports reflecting diagnostic findings, therapeutic

recommendations, and patient's progress. May collaborate with PSYCHIATRISTS and other specialists in diagnosis and treatment. May direct and instruct students serving psychological internships in hospitals or clinics. May conduct research in personality development, learning, or other aspects of human behavior. May administer activities of institution serving needs of disturbed, mentally retarded, or other groups requiring psychological services. May specialize in one or more aspects of field, such as test administration or mental retardation.

EDUCATION, TRAINING, AND EXPERIENCE

Few positions available without a Master's degree in Psychology, and a Ph.D is usually necessary for advancement. Supervised clinical experience, usually one year, is typically included in graduate study program. Many employers require several years of clinical practice, often with the mentally retarded. Key positions may require significantly higher qualifications, such as administrative or research experience.

WORKER TRAITS

Aptitudes

Verbal ability to communicate at various levels with patients, lay persons, and fellow members of the rehabilitation team, and to understand medical terminology.

Numerical ability to understand and present quantitative aspects of patient care, such as test scores and statistical relationships expressed in case histories and psychological literature.

Some clerical perception required to maintain case records.

Interests

A preference for activities involving working with people for their presumed good, such as the maladjusted or handicapped.

A preference for activities involving people and the communication of ideas to communicate with parents, patients, and others, to evaluate patient problems, and to plan therapy programs meeting specific needs.

A preference for scientific and technical activities to understand and relate psychological testing and experimental methodology to operational needs.

Temperaments

Ability to direct, control, or plan such activities as therapy programs involving action by others.

Ability to form conclusions based on sensory or judgmental criteria and measurable or verifiable criteria, required in evaluating patients' capacities and needs from interviews and objective tests.

Ability to deal with people of varying needs, requiring varying responses, to carry out counseling and other functions.

Physical Demands and Working Conditions

Work is mostly sedentary.

Talking and hearing required to communicate with patients, members of staff, parents, and others.

Work is performed inside.

Near visual acuity to score tests and prepare case records.

PSYCHOLOGIST, SCHOOL

045.108
(0-36.43)

OCCUPATIONAL DEFINITION

Diagnoses needs of handicapped, disturbed, gifted, or other exceptional children within educational system or school, and plans and implements corrective programs to facilitate their maximum achievement and personal adjustment: Conducts diagnostic studies to identify children's needs, limitations, and potentials by observing them in classroom and at play, reviewing school records, conferring with parents and school personnel, and administering standardized tests. Interprets findings and recommends assignment of children to existing special education programs or plans new programs to meet their needs. Counsels pupils individually and in groups, employing such techniques as psychodrama and play therapy to assist them in achieving academic and personal adjustment. Refers multi-problem and severely handicapped or disturbed cases to appropriate private facilities and community agencies for more extensive, specialized services required by child or family. Plans or participates in planning system-wide testing programs, remedial classes, and other special education services to meet changing needs. Provides consultative services to school board, school administrators, administrative committees, teachers, and parent-teacher groups. Keeps records of casework activities, and prepares case-history reports and recommendations for action as required.

EDUCATION, TRAINING, AND EXPERIENCE

Few positions available without at least a master's degree in Psychology. Key positions may require significantly higher qualifications, such as administrative, clinical, or research experience, a Ph.D., and specialized experience with exceptional children.

WORKER TRAITS

Aptitudes

Verbal ability to communicate at various levels with students, teachers, parents, and school administrators; to understand psychological terminology; and to prepare case-history reports.

Numerical ability to understand and present quantitative aspects of student adjustment problems, such as test scores and statistical relationships expressed in psychological literature.

Some clerical perception required to maintain case records.

Interests

A preference for activities involving working with people for their presumed good, such as the maladjusted or handicapped.

A preference for activities involving people and the communication of ideas to communicate with students, parents, and others; to evaluate student problems; and to plan programs meeting specific needs.

A preference for scientific and technical activities to understand and relate psychological testing and experimental methodology to operational needs.

Temperaments

Ability to direct, control, or plan such activities as educational programs involving action by others.

Ability to form conclusions based on sensory or judgmental criteria and measurable or verifiable criteria, required in evaluating students' capacities and needs from results of student interviews and objective tests.

Ability to deal with people of varying needs, requiring varying responses, to carry out counseling and other functions.

Physical Demands and Working Conditions

Work is sedentary.

Talking and hearing required to communicate with children, members of staff, parents, and school administrators.

Near visual acuity to score tests and prepare case records.

Work is performed inside.

RECREATIONAL THERAPIST

079.128

(0-32.05)

OCCUPATIONAL DEFINITION

Organizes and directs medically approved recreation program for patients in hospitals, rehabilitation centers, and similar institutions to effect improvement in their physical or mental condition: Organizes and directs such activities as adapted sports, dramatics, nature study, social activities, games, and arts and crafts in accord with patients' needs, capabilities, and interests as determined by discussions with other members of rehabilitation team. Participates in recreation activities as necessary. Prepares reports for medical staff and other members of treatment team, reflecting patients' progress. May supervise activities of volunteer workers and others participating in therapy program. May specialize in one or more aspects of recreation, as arts and crafts or sports.

EDUCATION, TRAINING, AND EXPERIENCE

College degree in Recreation or Recreation Therapy preferred, although a degree in Physical Education, Art, Dramatics, or related subject may qualify beginning therapists after on-the-job training or clinical experience. Persons with a special interest in one aspect of recreation, such as dancing or drama, may prefer restricting their college major and their job opportunities accordingly.

WORKER TRAITS

Aptitudes

Verbal ability to orient services to patients of varying levels of maturity and comprehension, and to understand medical terminology as related to patient's therapy program.

Motor coordination and eye-hand-foot coordination to lead and participate in such recreational activities as dancing, group sports, and children's games.

Manual dexterity and finger dexterity to participate in and teach arts and crafts, such as ceramics and beadwork.

Color discrimination for art instruction.

Interests

A preference for activities involving people and the communication of ideas to instruct patients and communicate with others.

A preference for activities of an abstract and creative nature needed to teach such skills as ceramics and artwork.

A preference for working with people for their presumed good necessary for working with the handicapped.

Temperaments

Ability to direct and perform variety of recreational activities and respond to varied patient needs.

Ability to plan and direct the recreational activities of others.

Ability to deal with people beyond giving and receiving instructions, evidenced in motivating patients and in promoting their adjustment through directed recreational activities.

Ability to interpret feelings, ideas, or facts in terms of personal viewpoint, evidenced in creative recreational activities, such as clay modeling and artwork.

Ability to assess patients' progress on basis of sensory or judgmental criteria.

Physical Demands and Working Conditions

Work may range from light to medium, depending on recreational activities pursued.

Climbing, balancing, stooping, kneeling, reaching, talking, hearing, and visual acuity all required in varying degrees, depending on activity, to demonstrate and engage in prescribed recreational program.

Work may be performed both indoors and outdoors.

REHABILITATION COUNSELOR

045.108

(0-36.40)

vocational rehabilitation counselor

OCCUPATIONAL DEFINITION

Counsels physically or mentally handicapped persons and members of their families to develop program of vocational training, to impart information about the individual's limitations and potential, and to place the individual in a job suited to his abilities: Reviews medical, psychological, and social history of counselee at sheltered workshop, hospital, school, community agency, or other facility. Counsels individual, providing information about job trends and employment opportunities, and ensures that counselee is willing to accept employment. Interviews family members to ascertain their attitudes toward the handicap and its possible limitations, presenting facts stemming from current developments in medical, scientific, and occupational research and from diagnoses and prognoses prepared by medical staff members. Confers with medical staff and other members of rehabilitation team to evaluate information obtained from

interviews and tests and from medical, scholastic, and employment records. Determines, from these conferences and from knowledge of working conditions, physical demands, and other requirements of jobs, type of work best suited to the individual's capabilities, interests, and talents. Develops, in cooperation with other team members, training program designed to prepare the handicapped individual for this work. Refers applicant to training center. On completion of training, develops job opening for individual by visiting or telephoning prospective employers' establishments and referring applicant for interview. Periodically contacts employer and individual referred to ascertain progress and attempt to resolve any adjustment problems. Arranges for subsequent counseling sessions where needed. Prepares case-history reports. Participates in community activities, such as speaking before interested groups to focus public attention on problems of the handicapped, to obtain support for rehabilitation programs, and to promote employment of handicapped workers. May administer aptitude, personality, interest, or achievement tests to handicapped individuals. May specialize in such problem areas as mental retardation, epilepsy, amputations, alcoholism, blindness, or tuberculosis.

EDUCATION, TRAINING, AND EXPERIENCE

College degree, preferably in Psychology, Sociology, Education, or related subject area. Specialized professional education leading to a master's degree in Vocational Rehabilitation is increasingly required, especially for advancement to higher-echelon positions. Experience in vocational guidance, personnel work, social work, teaching, and health-service work may be especially helpful to applicants without advanced degrees. College courses in public speaking, occupational information, test administration, and counseling are desirable, regardless of degree program pursued.

WORKER TRAITS

Aptitudes

Verbal ability to counsel handicapped persons and families, to solicit job vacancies, to prepare case reports, to read medical and psychiatric evaluation of client, and to participate in public information activities.

Spatial ability to relate work elements in occupations to client's disability, particularly where the client is physically handicapped.

Interests

A preference for activities concerned with people and the communication of ideas to counsel the handicapped and deal with parents, employers, and others, and to plan total rehabilitation program.

A preference for working with people for their presumed good to assist the handicapped in their vocational adjustment.

Temperaments

Ability to deal with people in terms of their total personalities to counsel clients and perform other public-contact functions.

Ability to plan a total rehabilitation program for handicapped persons and to direct its implementation by other members of the rehabilitation team.

Ability to make decisions influencing client's welfare on basis of sensory or judgmental criteria.

Ability to function in situations involving variety and change, as each individual or problem may differ markedly from previous experience and may require different responses or approaches.

Physical Demands and Working Conditions

Work is usually sedentary and is performed indoors.

Talking and hearing required constantly in contacts with clients and employers, and in related activities.

SOCIAL WORKER

195.108
(0-27.20)

OCCUPATIONAL DEFINITION

Counsels and assists individuals, families, and groups in meeting problems involving personal adjustment, health, finances, and similar difficulties through institutional or community social service activities: Interviews client, members of his family, employer, clergyman, and others familiar with client's situation to develop case history and determine nature and dimension of problem. Assesses problem in terms of all factors contributing to client's situation and his capacity to respond constructively to needed changes in attitudes or behavior. Plans approach for solving or improving client's adjustment to problem, conferring with medical, legal, or other specialists as necessary. Counsels client and members of family, individually or in group, to suggest steps for improving situation and to assist client in recognizing need for changes in attitudes, actions, or conditions that have contributed to it. Refers client or members of family to specialized agencies, such as medical or psychiatric clinic, rehabilitation center, employment office, or legal-aid society as indicated. Assists clients in such actions as securing public-assistance benefits, obtaining adoptive or foster homes for children, and enrolling the handicapped in special schools or activity programs. Cooperates with charitable, religious, fraternal, health service, and related organizations to plan and coordinate service to individuals or groups. Organizes and participates in group activities for children, adolescents, and adults in such settings as parks, camps, community centers, and institutions. Addresses interested groups and participates in variety of civic activities to improve community understanding and enlist support for social service programs. Prepares records and reports to assist welfare officials in meeting operational responsibilities and planning future needs. May specialize in one phase of activity, such as medical or psychiatric social service, child welfare, public assistance, individual or family casework, group work, or community-wide welfare planning.

EDUCATION, TRAINING, AND EXPERIENCE

College degree required with master's degree in Social Work from accredited school essential for advancement. Employers differ in hiring requirements for social work specializations, such as psychiatric or medical social work, groupwork, and administration. The relative value of specialization in one of the above areas may be less important, in serving the retarded, than experience with the handicapped and a particular interest or facility in dealing with their problems.

WORKER TRAITS

Aptitudes

Verbal ability to communicate with counselees and others during casework activities, and to read reports and prepare case histories.

Some clerical perception required to maintain case records.

Interests

A preference for activities concerned with people and the communication of ideas to work effectively with the public, and to evaluate client problems and develop constructive approaches to their solution.

A preference for working with people for their presumed good, such as the indigent and handicapped.

Temperaments

Ability to perform job duties requiring considerable variety and change in work location, in nature and criticality of problems encountered, and in types of clients served.

Ability to deal with people and their attitudes, opinions, and behavior to effect constructive changes in client's or family's conduct, home situation, and other unfavorable conditions bearing on case.

Ability to arrive at decisions based on sensory or judgmental criteria in identifying, resolving, or ameliorating social problems.

Physical Demands and Working Conditions

Work may range from sedentary to light, as incumbent may be required to walk, drive, climb stairs, and engage in similar light exertion when visiting homes.

Talking and hearing essential for casework activities.

Near visual acuity required to prepare reports and case records.

Normaliy, work is performed inside.

SOCIAL WORKER, SCHOOL

195.108
(0-27.20)

home-and-school visitor; school adjustment counselor ; visiting teacher

OCCUPATIONAL DEFINITION

Assists children having difficulty adapting themselves to school life where individualized professional help is indicated: Counsels children whose behavior or school progress indicates need for individual guidance. Consults with parents, teachers, and other school personnel to determine causes of problems and to effect solutions. Arranges for medical, psychiatric, and other examinations that may disclose causes of difficulties and indicate remedial measures. Assists students, parents, and teachers to recognize attitudes or conditions that may have caused or aggravated problems. Recommends change of class or school, special tutoring, or other action to resolve or ameliorate problem situations. Serves as liaison between school and community resources, such as family-service agencies, child-guidance clinics, protective services, doctors, and clergymen. Serves as consultant to school personnel regarding children or situations not referred to him for direct service. Prepares case reports and records reflecting activities.

EDUCATION, TRAINING, AND EXPERIENCE

College degree required, preferably with such courses as education, psychology, guidance counseling, anthropology, and sociology. Frequently,

experienced teachers are promoted into this occupation because of their personal qualifications and demonstrated desire to work with problem children in a home setting. The recommended preparation for all social work, however, is a baccalaureate degree plus two years of graduate study leading to a master's degree from an accredited school of social work.

WORKER TRAITS

Aptitudes

Verbal ability to communicate with students, teachers, and parents during casework activities and to read reports and prepare case histories.

Some clerical perception and numerical ability required to maintain records relating to pupil attendance and other quantitative aspects of casework services.

Interests

A preference for activities concerned with people and the communication of ideas to work effectively with the public and to evaluate pupil problems and develop constructive approaches to their solution.

A preference for working with people for their presumed good, necessary for working with retarded youngsters or others experiencing adjustment problems.

Temperaments

Ability to perform job duties requiring considerable variety and change in work location, in nature and criticality of problems encountered, and in types of students served.

Ability to deal with people and their attitudes, opinions, and behavior to effect constructive changes in pupils conduct, home situation, and other unfavorable conditions bearing on case.

Ability to develop plans and arrive at decisions based on sensory or judgmental criteria in resolving or ameliorating student problems.

Physical Demands and Working Conditions

Work may range from sedentary to light, as incumbent may be required to walk, drive, climb stairs, and engage in similar light exertion when visiting homes.

Talking and hearing essential in counseling and other casework activities.

Near visual acuity required to maintain case records and prepare reports.

Normally, work is performed inside.

SPEECH CLINICIAN

079.108
(0-39)

speech correctionist; speech therapist

OCCUPATIONAL DEFINITION

Examines and provides remedial services to victims of speech and language disorders in clinics, schools, residential institutions, and similar facilities: Examines patients and performs standard diagnostic tests to

determine nature and severity of disorder, such as stuttering or lisping, and speech problems associated with impairments, such as cleft palate, cerebral palsy, mental retardation, and aphasia. Instructs handicapped patients in desirable speech habits and voice improvement by exercise in controlling breathing, articulation, and voice, where impairment is not correctible by surgery or other medical treatment, using tape recorder, mirrors, balloons, and similar work aids. When instructing patients having multiple handicaps, coordinates speech therapy with other rehabilitative activities, conferring with appropriate members of rehabilitation team to exchange information relating to patients' progress and needs. May counsel patients, their families, and teachers concerning social, vocational, and psychological problems associated with disabilities of speech or voice. When qualified to administer hearing tests and provide remedial services to victims of speech disorders resulting from hearing loss, may be known as SPEECH-AND-HEARING-CLINICIAN. When meeting prescribed certification standards requiring graduate training in speech pathology and audiology, may be designated SPEECH PATHOLOGIST.

EDUCATION, TRAINING, AND EXPERIENCE

Generally, a college degree in Speech or Speech Therapy, preferably with subsequent supervised clinical experience, is considered qualifying. In some cases, experienced teachers with degrees in other specializations have qualified by taking postgraduate work in speech therapy. A Master's degree in Speech Pathology and Audiology is necessary for certification as a SPEECH PATHOLOGIST. Workers who qualify as SPEECH-AND-HEARING CLINICIANS, rather than in speech therapy alone, may find opportunities more readily available and advancement more rapid.

WORKER TRAITS

Aptitudes

Verbal ability to communicate with patients and other members of rehabilitation team, and to understand medical terminology.

Spatial perception to understand physiology of speech production and nature of speech defects.

Interests

A preference for dealing with people, especially the handicapped, in a personal and professional relationship.

A preference for activities of a scientific and technical nature, required for understanding the physiology of speech production and applying the concepts of speech therapy.

A preference for working with people for their presumed good to instruct the speech-handicapped.

Temperaments

Ability to direct, control, and plan activities, such as speech therapy program, and implement it by conducting speech exercises with patients.

Ability to examine patients and form diagnostic conclusions of speech defects on basis of measurable or verifiable criteria, using standard diagnostic procedures.

Ability to form judgmental conclusions about efficacy of specific therapy techniques in correcting speech problem of patient, and to plan total therapy program of maximum benefit.

Ability to deal with people in terms of their total personalities to enlist their cooperation in diagnosis and therapy.

Physical Demands and Working Conditions

Work is light.

Reaching, handling, and feeling involved in examining patients and in using work aids, such as balloons and mirrors.

Talking and hearing essential to examine and instruct patients.

Near visual acuity required to conduct examinations of speech organs.

Work is performed inside.

SUPERINTENDENT, INSTITUTION

187.118
(0-99.84)

OCCUPATIONAL DEFINITION

Administers activities of residential institution providing custodial or rehabilitative services to mentally retarded and multi-problem patients: Plans and coordinates, through subordinates, educational, recreational, custodial, and other programs of institution according to principles of efficient management, available personnel resources, and appropriate rehabilitative approaches for type of institution and needs of patients. Directs management of supporting services, such as cafeterias, laundries, infirmaries, farms, camps, dairies, and industries, delegating operational responsibilities to subordinates. Establishes and implements policies of institution relating to acceptance, rehabilitation, and release of patients, employment of staff, and similar responsibilities in accord with applicable laws and procedures governing residential institutions. Confers with staff, visitors, and other individuals and groups to clarify policies, resolve problems, and exchange information concerning institutional activities. Maintains continuing contacts with schools, welfare and rehabilitation agencies, professional organizations, and other groups to facilitate referral of patients and application of new approaches to institutional needs. Plans major changes or additions to physical plant and modifications in program activities for approval by governing board or other authority. Authorizes disbursements for major expenditures requested by subordinates. Directs preparation of statistical and narrative reports reflecting institutional activities. May prepare or direct preparation of budget. May interview, hire, and discharge personnel. May direct or participate in research activities being carried on under auspices of institution. In smaller institutions, may perform diagnostic, therapeutic, or counseling functions depending on medical, psychological, or psychiatric specialization.

EDUCATION, TRAINING, AND EXPERIENCE

Varies according to institution. Some institutions require a qualified PHYSICIAN, frequently a PEDIATRICIAN or PSYCHIATRIST with demonstrated administrative or clinical experience. Others accept candidates with a master's or doctoral degree in Psychology, Social Work, Education, or an allied discipline, plus additional administrative experience. Still others prefere administrators with backgrounds in business administration, hospital administration, or a related competence. Substantial experience with handicapped children, often specifically the mentally retarded, may also be required.

WORKER TRAITS

Aptitudes

Verbal ability required to direct institutional program and to confer with parents, staff, and others of varying levels of comprehension and verbal sophistication.

Numerical ability to understand variety of budgeting and statistical relationships.

Interests

A preference for situations involving business contact with people to direct institutional activities and participate in professional activities as representative of institution.

A preference for situations involving people and the communication of ideas to plan institutional programs and communicate them to staff.

A preference for activities resulting in prestige or the esteem of others reflected in nature and stature of position within institution and in community.

Temperaments

Ability to respond to administrative problems and situations often characterized by variety and change.

Ability to direct, control, or plan an activity or the activities of others, required for exercising direction over institutional activities and personnel.

Ability to deal with people of varying capacities to supervise subordinate personnel and cooperate with other groups in the community or profession.

Ability to form conclusions based both on measurable or verifiable criteria and on sensory or judgmental criteria in planning, scheduling, evaluating, and otherwise carrying on supervisory and administrative activities.

Physical Demands and Working Conditions

Work is sedentary.

Considerable talking and hearing involved in interpersonal relationships with staff, parents, and community groups.

Work is performed inside.

TEACHER, SPECIAL EDUCATION

094.228
(0-32.03)

teacher, mentally deficient; teacher, mentally retarded

OCCUPATIONAL DEFINITION

Instructs mentally retarded students in rudiments of reading, writing, arithmetic, music, arts and crafts, self-care and socially acceptable behavior, and vocational subjects in schools and other institutions to improve self-sufficiency and employability: Plans instructional program in accordance with such factors as degree of retardation, social maturity, age, sex, emotional stability, and educational background of students, as de-

termined by observation, review of case histories, and results of appropriate tests. Provides systematic instruction in such areas as reading and writing, industrial arts and crafts, home management and homemaking activities, music, art, and physical education. Selects or devises instructional techniques, materials, or equipment, including audiovisual materials, best suited to students' needs. Counsels students experiencing social or emotional difficulties. Prepares reports, evaluations, and recommendations for other members of rehabilitation team, based on students' reactions to classroom situations. Discusses progress of students with parents or team members to ascertain factors inhibiting progress and to ensure maximum effectiveness in developing students' potential. May specialize in teaching academic subjects or industrial arts and crafts to mildly retarded students or in instructing more severely retarded students in socialization skills, including sharing and getting along with others; self-help skills, including feeding and dressing one's self; and in practical skills, such as setting the table, dusting, ironing, and traveling to work on public transit. When specializing in teaching such subjects as arts and crafts, music, or dancing, may be designated SPECIAL-RESOURCES TEACHER.

EDUCATION, TRAINING, AND EXPERIENCE

Graduation from accredited college or university with degree in Elementary or Secondary Education, with completion of required courses in education of the exceptional child, plus courses in subject-matter specialty. Up to two years' experience teaching the mentally retarded in addition to student teaching requirement while studying for degree required.

WORKER TRAITS

Aptitudes

Verbal ability to communicate with students whose abilities in these areas are significantly below average; also significant for preparation of reports.

Numerical ability to teach arithmetic and to score tests.

Clerical perception to keep attendance and achievement records.

Interests

A preference for situations involving activities concerned with people and the communication of ideas to instruct students and communicate with fellow staff members, parents, and others.

A preference for working with people for their presumed good or for dealing with people and language in social situations to work with the handicapped.

Temperaments

Ability to adjust to varied conditions, job demands, and capacities of students as required to conduct meaningful instructional program geared to student needs.

Ability to assume responsibility for the direction, control, and planning of an entire activity or the activities of others, such as assignments and class projects.

Ability to deal with people in actual job duties beyond giving and receiving instructions, needed to communicate with students and others.

Ability to make decisions according to sensory or judgmental criteria and measurable or verifiable criteria to evaluate students' achievement, potential, and academic or social progress.

Physical Demands and Working Conditions

Light to medium work (varies with specialization; shop instructors meriting medium, others light).

Reaching, handling, fingering, and feeling for craft work and shop classes.

Talking and hearing to emphasize instructions for students who may not easily grasp the spoken word.

Near visual acuity to examine finished work, demonstrate techniques to students, and to keep class records.

Work area may be noisy.

Work is performed inside.

GLOSSARY

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ELECTROENCEPHALOGRAPH: An instrument that measures impulse frequencies and differences in electrical potential in different parts of the brain. Data are recorded as a series of irregular lines on a continuous graph, and used by the medical practitioner as an aid in diagnosing brain disorders.

DAY-CARE CENTER: A facility attended by retarded individuals, usually during school hours, to obtain training, personal care and supervision, and recreational and social experiences. In most cases, such facilities exist primarily to serve very young retardates and those unable to profit from conventional school programs or special education classes.

GENETICS: That branch of biology concerned with heredity and variation of characteristics in all forms of life.

HALFWAY HOUSE: An establishment or facility housing mentally retarded individuals for a temporary period following completion of occupational training, to enable them to adjust gradually to independent living. Similar facilities exist to serve alcoholics, former mental patients, and parolees.

MULTI-PROBLEM: A designation applied to retarded individuals with one or more additional handicaps, such as disease, speech defects, deformities, mental or emotional disorders, or special problems of adjustment.

NEUROLOGY: The branch of medicine concerned with the diagnosis and treatment of organic diseases and disorders of the nervous system.

ORTHOTICS: The branch of health science concerned with making and fitting orthopedic braces and devices to support weakened body parts or to correct physical defects, such as spinal malformations.

PHYSICAL THERAPY: The branch of medicine concerned with the treatment of patients with disabilities, disorders, or injuries to relieve pain, develop or restore function, and maintain maximum performance, by the use of such physical means as massage, heat, water, electricity, and exercise.

PROSTHETICS: The branch of health science concerned with the making and fitting of artificial limbs for the human body.

PSYCHOMETRICS: The branch of psychology concerned with the development, administration, scoring, and interpretation of intelligence, aptitude, achievement, and similar tests.

SHELTERED WORKSHOP: An establishment employing handicapped individuals who produce products or perform services in accordance with their abilities, and who receive wages, occupational training, and advice or assistance in adjusting to independent or semi-independent living. Some workshops vigorously attempt to place workers in gainful employment outside workshop, while others service only individuals of marginal employability.

DEFINITIONS OF WORKER TRAITS

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APTITUDES: Specific capacities and abilities required of an individual in order to learn or perform adequately a task or job duty.

INTELLIGENCE: General learning ability. The ability to "catch on" or understand instructions and underlying principles. Ability to reason and make judgments. Closely related to doing well in school.

VERBAL: Ability to understand meanings of words and ideas associated with them, and to use them effectively. To compreheld language, to understand relationships between words, and to understand meanings of whole sentences and paragraphs. To present information or ideas clearly.

NUMERICAL: Ability to perform arithmetic operations quickly and accurately.

SPATIAL: Ability to comprehend forms in space and understand relationships of plane and solid objects. May be used in such tasks as blueprint reading and in solving geometry problems. Frequently described as the ability to "visualize" objects of two or three dimensions, or to think visually of geometric forms.

FORM PERCEPTION: Ability to perceive pertinent detail in objects or in pictorial or graphic material; to make visual comparisons and discriminations and see slight differences in shapes and shadings of figures and widths and lengths of lines.

CLERICAL PERCEPTION: Ability to perceive pertinent detail in verbal or tabular material; to observe differences in copy, to proofread words and numbers, and to avoid perceptual errors in arithmetic computation.

MOTOR COORDINATION: Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and quickly.

FINGER DEXTERITY: Ability to move the fingers and manipulate small objects with the fingers rapidly or accurately.

MANUAL DEXTERITY: Ability to move the hands easily and skillfully. To work with the hands in placing and turning motions.

EYE-HAND-FOOT COORDINATION: Ability to move the hand and foot coordinately with each other in accordance with visual stimuli.

COLOR DISCRIMINATION: Ability to perceive or recognize similaries or differences in colors, or in shades or other values of the same color; to identify a particular color, or to recognize harmonious or contrasting color combinations, or to match colors accurately.

INTERESTS: Preferences for certain types of work activities or experiences, with accompanying rejection of contrary types of activities or experiences. Five pairs of interest factors are provided so that a positive preference for one factor of a pair also implies rejection of the other factor of that pair.

1. Situations involving a preference for activities dealing with things and objects.	vs.	6. Situations involving a preference for activities concerned with people and the communication of ideas.
2. Situations involving a preference for activities involving business contact with people.	vs.	7. Situations involving a preference for activities of a scientific and technical nature.
3. Situations involving a preference for activities of a routine, concrete, organized nature.	vs.	8. Situations involving a preference for activities of an abstract and creative nature.
4. Situations involving a preference for working for people for their presumed good, as in the social welfare sense, or for dealing with people and language in social situations.	vs.	9. Situations involving a preference for activities that are nonsocial in nature, and are carried on in relation to processes, machines, and techniques.
5. Situations involving a preference for activities resulting in prestige or the esteem of others.	vs.	0. Situations involving a preference for activities resulting in tangible, productive satisfaction.

TEMPERAMENTS: Different types of occupational situations to which workers must adjust.

1. Situations involving a variety of duties often characterized by frequent change.
2. Situations involving repetitive or short-cycle operations carried out according to set procedures or sequences.
3. Situations involving doing things only under specific instruction, allowing little or no room for independent action or judgment in working out job problems.
4. Situations involving the direction, control, and planning of an entire activity or the activities of others.
5. Situations involving the necessity of dealing with people in actual job duties beyond giving and receiving instructions.
6. Situations involving working alone and apart in physical isolation from others, although the activity may be integrated with that of others.

7. Situations involving influencing people in their opinions, attitudes, or judgments about ideas or things.
8. Situations involving performing adequately under stress when confronted with the critical or unexpected or when taking risks.
9. Situations involving the evaluation (arriving at generalizations, judgments, or decisions) of information against sensory or judgmental criteria.
10. Situations involving the evaluation (arriving at generalizations, judgments, or decisions) of information against measurable or verifiable criteria.
11. Situations involving the interpretation of feelings, ideas, or facts in terms of personal viewpoint.
12. Situations involving the precise attainment of set limits, tolerances, or standards.

PHYSICAL DEMANDS: Those physical activities required of a worker in a job. The physical demands referred to serve as a means of expressing both the physical requirements of the job and the physical capacities (specific physical traits) a worker must have to meet the requirements.

1. **Lifting, Carrying, Pushing, and/or Pulling** (Strength). These are the primary "strength" physical requirements, and generally speaking, a person who engages in one of these activities can engage in all.
Specifically, each of these activities can be described as:

(1) Lifting: Raising or lowering an object from one level to another (includes upward pulling).

(2) Carrying: Transporting an object, usually holding it in the hands or arms or on the shoulder.

(3) Pushing: Exerting force upon an object so that the object moves away from the force (includes slapping, striking, kicking, and treadle actions).

(4) Pulling: Exerting force upon an object so that the object moves toward the force (includes jerking).

The five degrees of this factor (Lifting, Carrying, Pushing, and/or Pulling) are:

S Sedentary Work: Lifting 10 lbs. maximum and occasionally lifting and/or carrying such articles as dockets, ledgers, and small tools. Although a sedentary job is defined as one which involves sitting, a certain amount of walking and standing is often necessary in carrying out job duties. Jobs are sedentary if walking and standing are required only occasionally and other sedentary criteria are met.

L Light Work: Lifting 20 lbs. maximum with frequent lifting and/or carrying of objects weighing up to 10 lbs. Even though the weight lifted may be only a negligible amount, a job is in this category when it requires walking or standing to a significant degree, or when it involves sitting most of the time with a degree of pushing and pulling of arm or leg controls.

M Medium Work: Lifting 50 lbs. maximum with frequent lifting and/or carrying of objects weighing up to 25 lbs.

H Heavy Work: Lifting 100 lbs. maximum with frequent lifting and/or carrying of objects weighing up to 50 lbs.

V Very Heavy Work: Lifting objects in excess of 100 lbs. with frequent lifting and/or carrying of objects weighing 50 lbs. or more.

2. Climbing and/or Balancing.

(1) Climbing: Ascending or descending ladders, stairs, scaffolding, ramps, poles, ropes, and the like, using the feet and legs and/or hands and arms.

(2) Balancing: Maintaining body equilibrium to prevent falling when walking, standing, crouching, or running on narrow, slippery, or erratically moving surfaces; or maintaining body equilibrium when performing gymnastic feats.

3. Stooping, Kneeling, Crouching, and/or Crawling.

(1) Stooping: Bending the body downward and forward by bending the spine at the waist.

(2) Kneeling: Bending the legs at the knees to come to rest on the knee or knees.

(3) Crouching: Bending the body downward and forward by bending the legs and spine.

(4) Crawling: Moving about on the hands and knees or hands and feet.

4. Reaching, Handling, Fingering, and/or Feeling.

(1) Reaching: Extending the hands and arms in any direction.

(2) Handling: Seizing, holding, grasping, turning, or otherwise working with the hand or hands (fingering not involved).

(3) Fingering: Picking, pinching, or otherwise working with the fingers primarily (rather than with the whole hand or arm, as in handling).

(4) Feeling: Perceiving such attributes of objects and materials as size, shape, temperature, or texture, by means of receptors in the skin, particularly those of the finger tips.

5. Talking and/or Hearing.

(1) Talking: Expressing or exchanging ideas by means of the spoken word.

(2) Hearing: Perceiving the nature of sounds by the ear.

6. Seeing: Obtaining impressions through the eyes of the shape, size, distance motion, color, or other characteristics of objects. The major visual functions are defined as follows:

(1) Acuity, far: clarity of vision at 20 feet or more.
Acuity, near: clarity of vision at 20 inches or less.

(2) Depth Perception: three-dimensional vision. The ability to judge distance and space relationships so as to see objects where and as they actually are.

(3) Field of vision: the area that can be seen up and down or to the right or left while the eyes are fixed on a given point.

(4) Accommodation: adjustment of the lens of the eye to bring an object into sharp focus. This item is especially important when doing near-point work at varying distances from the eye.

(5) Color vision: the ability to identify and distinguish colors.

WORKING CONDITIONS: The physical surroundings of a worker in a specific job. Also known as Environmental Conditions.

1. **Inside, Outside, or Both.**

   I Inside: Protection from weather conditions, but not necessarily from temeprature changes.

   O Outside: No effective protection from weather.

   B Both: Inside and outside.

   A job is considered "inside" if the worker spends approximately 75 per cent or more of his time inside, and "outside" if he spends approximately 75 per cent or more of his time outside. A job is considered "both" if the activities occur inside or outside in approximately equal amounts.

2. **Extremes of Cold Plus Temperature Changes.**

   (1) **Extremes of Cold:** Temperature sufficiently low to cause marked bodily discomfort unless the worker is provided with exceptional protection.

   (2) **Temperature Changes:** Variations in temperature which are sufficiently marked and abrupt to cause noticeable bodily reactions.

3. **Extremes of Heat Plus Temperature Changes.**

   (1) **Extremes of Heat:** Temperature sufficiently high to cause marked bodily discomfort unless the worker is provided with exceptional protection.

   (2) **Temperature Changes:** Same as 2 (2).

4. **Wet and Humid.**

   (1) **Wet:** Contact with water or other liquids.

   (2) **Humid:** Atmospheric condition with moisture content sufficiently high to cause marked bodily discomfort.

5. **Noise and Vibration.** Sufficient noise, either constant or intermittent, to cause marked distraction or possible injury to the sense of hearing and/or sufficient vibration (production of an oscillating movement or strain on the body or its extremities from repeated motion or shock) to cause bodily harm if endured day after day.

6. **Hazards.** Situation in which the individual is exposed to the definite risk of bodily injury.

7. **Fumes, Odors, Toxic Conditions, Dust, and Poor Ventilation.**

   (1) **Fumes:** Smoky or vaporous exhalations, usually odorous, thrown off as the result of combustion or chemical reaction.

   (2) **Odors:** Noxious smells, either toxic or nontoxic.

   (3) **Toxic Conditions:** Exposure to toxic dust, fumes, gases, vapors, mists, or liquids which cause general or localized disabling conditions as a result of inhalation or action on the skin.

   (4) **Dust:** Air filled with small particles of any kind, such as textile dust, flour, wood, leather, feathers, etc., and inorganic dust, including silica and asbestos, which make the workplace unpleasant or are the source of occupational diseases.

   (5) **Poor Ventilation:** Insufficient movement of air causing a feeling of suffocation; or exposure to drafts.

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INDEX OF OCCUPATIONAL TITLES

The titles listed, all in alphabetical order, are presented in four forms:

All capital letters—main titles identifying the jobs.

All lowercase letters—alternate or synonym are titles by which a job is also known.

Initial capital letters—related titles. These are self-descriptive variations of the jobs with which they are associated.

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SELECTED OCCUPATIONAL INFORMATION PUBLICATIONS

Publications may be ordered from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. Remittance in the form of check or money order payable to the Superintendent of Documents must accompany all orders. Do not send postage stamps.

1. CAREER GUIDE FOR DEMAND OCCUPATIONS. 1965. 40 pp. $.30. Provides information on education, training and worker trait requirements for 71 occupations in demand; also a bibliography of selected references.

2. DICTIONARY OF OCCUPATIONAL TITLES, in two volumes. Volume I. 1965. 809 pp. $5.00. Lists in alphabetic order over 35,000 job titles in the American economy. Provides definitions for almost 22,000 individual occupations

   Volume II. 1965. 656 pp. $4.25. Presents the occupational classification structure of the U. S. Employment Service. The structure consists of two arrangements of jobs. The first arrangement groups jobs according to a combination of work field, purpose, material, product, subject matter, generic term, and/or industry. The second arrangement groups jobs according to abilities and traits required of workers. Also arrays jobs according to industry.

3. HEALTH CAREERS GUIDEBOOK. 1965. $1.50. Written and designed to appeal to young people who are interested in planning a career in the health field. Describes more than 200 jobs in this field and contains information about educational, training and licensing requirements; job prospects; salaries and working conditipns; personal qualifications required; and sources of additional information.

4. JOB GUIDE FOR YOUNG WORKERS. 1963. 78 pp. $.45. Presents highlight information on entry jobs or fields of work frequently held by young people leaving high school. Provides information on employment prospects, qualifications for jobs, usual duties, characteristics of the jobs, and how and where jobs are obtained. Also directs the young job-seeker to Federal and State agencies which can provide job information and counseling. Includes selected readings and some tips on how to get a job.

5. OCCUPATIONS IN ELECTRONIC COMPUTING SYSTEMS. 1965. 72 pp. $.30. Describes 23 different occupations peculiar to electronic computing. Gives the education, training and characteristics required of the worker by the job, and lists the physical activities and environmental conditions usually encountered. Also has a glossary of technical terms, a bibliography, and a listing of organizations, colleges, and universities where additional information about electronic computing systems may be obtained.

6. OCCUPATIONS IN THE FIELD OF LIBRARY SCIENCE. 1966. 57 pp. $.30. Presents descriptive information about 22 occupations involved in library work, including education, training, and experience, and the worker traits required.

7. SELECTED OCCUPATIONS CONCERNED WITH ATOMIC ENERGY. 1961. 57 pp. $.25. Presents information on 14 jobs in the peaceful application of atomic energy. Illustrated, and includes information on aptitudes and temperament characteristics required by the jobs. Also includes a glossary of technical terms and a bibliography.

8. TECHNOLOGICAL CHANGES IN COMPOSING ROOM AND BINDERY PROCESSES IN THE PRINTING AND PUBLISHING INDUSTRY. 1964. 50 pp. A single copy, from a limited supply, is available, upon request, from the U. S. Employment Service, Bureau of Employment Security, U. S. Department of Labor, Washington, D. C. 20210. Presents a preliminary picture of occupational and staffing changes brought about in composing room and bindery processes as a result of the introduction of automated equipment or technological innovations. A limited study, covering eight plants in a single geographical area, and, therefore, not necessarily representative of the industry as a whole.

9. TRAINING AND REFERENCE MANUAL FOR JOB ANALYSIS. Interim Revision. 1965. 91 pp. $.60. An operational and reference text that presents the principles and practices for obtaining information about jobs.

Other occupational information publications prepared by the U. S. Employment Service are listed in a booklet titled BUREAU OF EMPLOYMENT SECURITY PUBLICATIONS, Section II, "Employment Service Publications." This booklet may be obtained without cost from the nearest local office of your State employment service or by writing to the U. S. Employment Service, Bureau of Employment Security, U. S. Department of Labor, Washington, D. C. 20210.

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